

MANUFACTURERS' RECORD

A Weekly Southern Industrial and Hardware Newspaper.

VOL. XII. No. 7.
WEEKLY.

BALTIMORE, SEPTEMBER 24, 1887.

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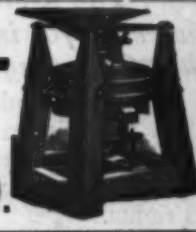
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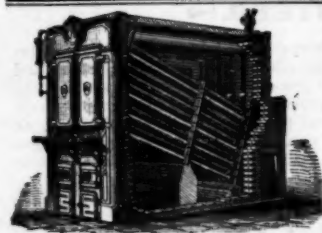
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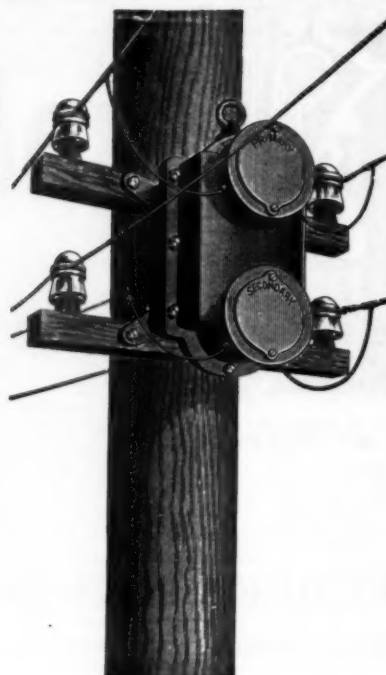
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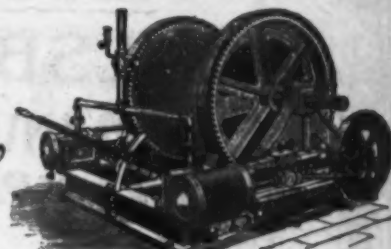
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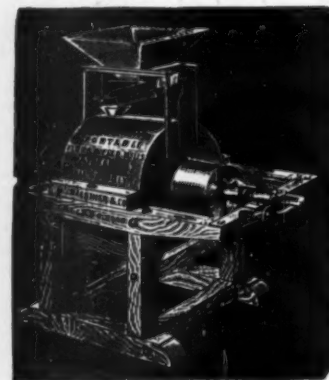
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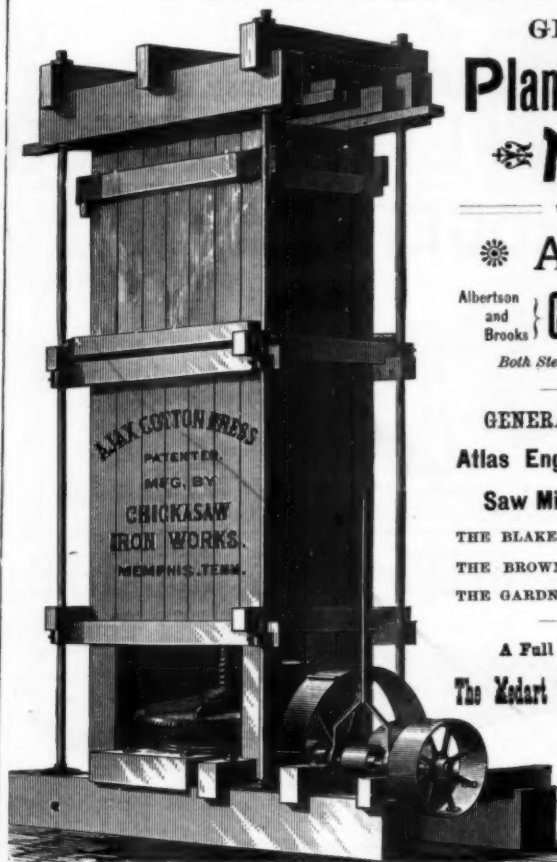
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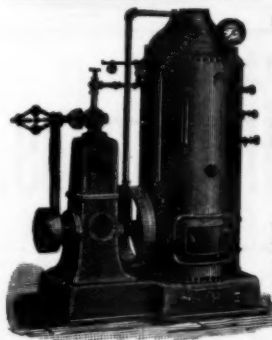
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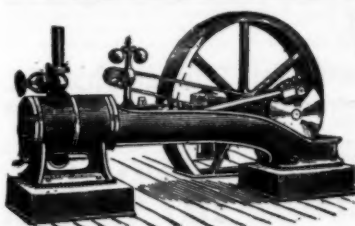
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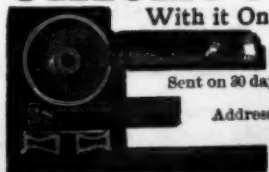
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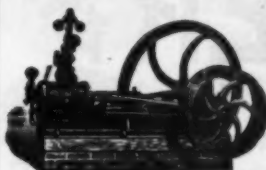
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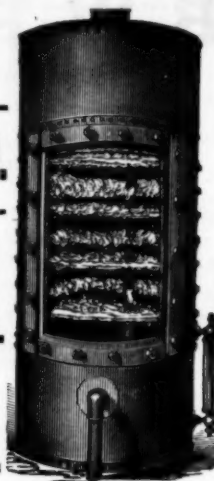
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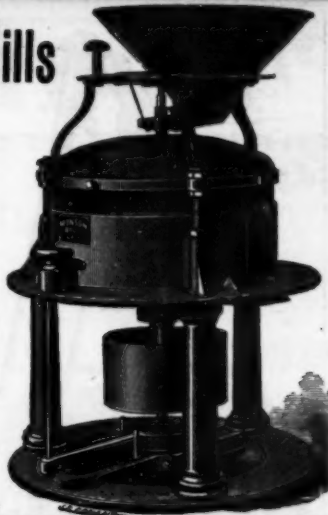
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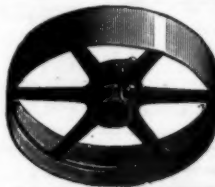
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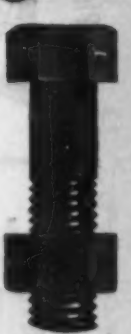
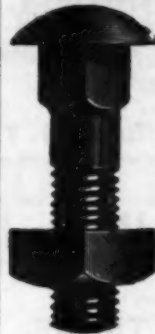
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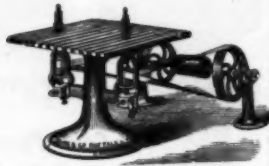
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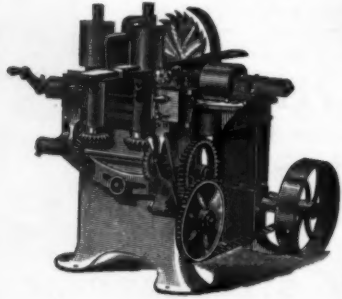
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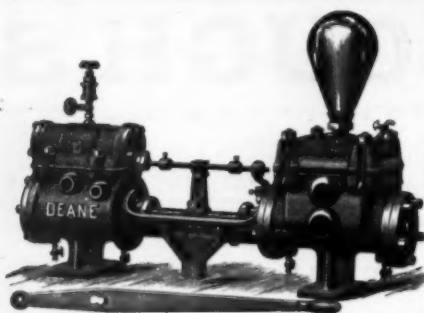


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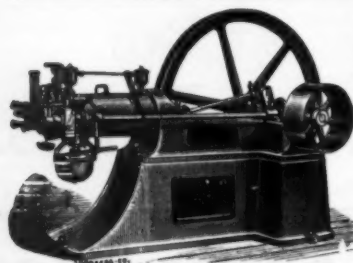
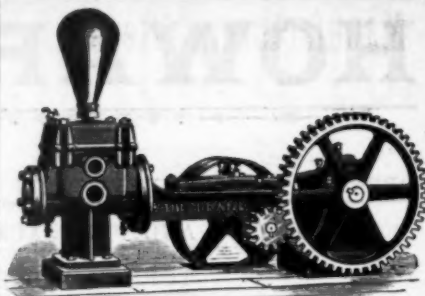
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BALTIMORE, SEPTEMBER 24, 1887.

Is the Piedmont Fair to be Ruined by Exorbitant Charges for Board?

The Constitution says that every spare room in Atlanta ought to be worth \$4 a day during the Exposition. The great Jerusalem! Please count us out on that figure. Atlanta evidently wants to get rich next month.—Birmingham Chronicle.

We would be glad to know if the Atlanta people really intend to be guilty of any such discreditable gouging scheme as the above seems to indicate. If not, the sooner it is contradicted the better, for this statement of the Constitution is already bearing its evil fruit. If the charges for accommodation are to be so exorbitant, then surely the people of the South have committed a mistake in spending money for making exhibits at Atlanta. We can hardly believe that the enterprising citizens of that wide-awake place would be guilty of such gross injustice to the South and to the visitors that they hope to attract. Surely the usually well-informed Constitution has made a mistake. But we would like to have an answer to the question—is it in contemplation to charge exorbitant rates for board? If so, Atlanta will be surprised to learn how greatly she has injured herself by the time the Exposition is over.

THE Richmond & Danville Railroad Co., with its accustomed enterprise, will make a comprehensive exhibit of the minerals, woods, &c., of the regions of country traversed by its various lines at the Piedmont Fair, under the management of Mr. C. C. McPhail, of Thomasville, N. C. Besides the vast quantity of material which will be displayed to illustrate the abundant and rich resources of mines and forests, Mr. McPhail will be prepared to give information as to specific objects for investment and details which will be valuable to interested parties. It may be depended upon that this will be a magnificent display of the resources of the country tributary to this great railroad.

If you wish to keep posted on the progress of the South, read the MANUFACTURERS' RECORD. Price \$3.00 a year.

The Corn Crop of the South.

The prospects of an enormous corn crop in the South, which seemed so promising a month ago, will not be fully realized, as the severe drought in some sections has very largely cut short the expected yield in one or two Southern States. The report of the United States Agricultural Department for September shows that the average condition of corn in Kentucky was only 60, against 78 in August; in Arkansas 92 against 97; Tennessee 80 against 89, and in West Virginia 80 against 90. Owing to this great and unexpected change, these States will produce less corn than in 1886, the decrease in Kentucky being very heavy, while a large increase in each had been counted upon.

In the other Southern States, however, there has been no such serious injury, and a large yield is now assured.

The Agricultural Department's report just issued gives the average condition of the crop in each State, and on this basis the yield for these ten States, as compared with last year, will be:

| States. | Bush. | Bush. |
|---------------------|-------------|-------------|
| Maryland..... | 16,970,000 | 15,099,000 |
| Virginia..... | 38,601,000 | 38,793,000 |
| North Carolina..... | 32,681,000 | 27,815,000 |
| South Carolina..... | 15,763,000 | 15,318,000 |
| Georgia..... | 32,066,000 | 31,197,000 |
| Florida..... | 5,131,000 | 4,597,000 |
| Alabama..... | 31,890,000 | 28,893,000 |
| Mississippi..... | 29,387,000 | 25,507,000 |
| Louisiana..... | 16,080,000 | 14,640,000 |
| Texas..... | 80,247,000 | 69,213,000 |
| | 299,458,000 | 268,419,000 |

These figures show an increase of over 37,000,000 bushels in the yield of the ten States given above. This great increase in corn production in the cotton States will prove of immense benefit not only to the farmers, but to every business interest in that section. In the West the yield of corn is so small that Southern farmers will doubtless secure much higher prices for their corn than last year.

SOME weeks ago a correspondent of the MANUFACTURERS' RECORD told of some of the advantages of that wonderful place on the dividing line of Virginia and Kentucky known as Big Stone Gap, to which 8 railroads are pointing, with several already under construction, although a town has not yet even been laid off there. Another correspondent in today's issue gives some additional facts regarding this place and its vast mineral wealth. It is at this point that the celebrated Elk Horn coal fields are found. These vast beds of the finest coking coals yet discovered in America, according to the statements of prominent chemists, will now be opened up by the building of these railroads, and it is a matter of absolute certainty that, with an abundant supply of such coke, inexhaustible beds of ore, with the best Bessemer ores but a short distance away, fine water power, magnificent timber resources and agricultural possibilities, a great development awaits this section of the South in the near future.

Great Little Things.

"Where do all the pins go?" How often this question has been asked and never answered satisfactorily. They are made by the billion, and hundreds of persons earn good wages in their production. Naugatuc valley, Connecticut, is sometimes jestingly spoken of as pin county, because of the large shops employed exclusively in making these little but very useful adjuncts to clothing, and the small army of work people in their employ. Stick a pin here, reader, and think for a moment of the old-Scotch proverb, "Many a mickle makes a muckle."

How many canary birds do you suppose there are in the United States? More than five million. These birds are busy feeders and great wasters of seed. They are the occasion of many industries. Hundreds of tons of brass and iron wire are annually made into cages for their benefit, and the world is ransacked to provide them with food. The three principal seeds, canary, rape and hemp, on which they live, are brought from Europe. Eleven million pounds of these were imported last year from Spain and the Mediterranean ports. Besides these there are other seeds, like millet and wheat, imported for these pets of the household, the whole bulk weighing fully 6,500 tons. Think of the hundreds of families in Europe to whose livelihood these birds contribute, of the ships whose cargoes they help to swell, of the transportation and express companies in this country to whom they furnish business, and of the stores scattered all over the land that deal in these seeds, finding them an important item of their daily trade.

This is the season for the importation of bulbs. One day recently three steamers landed in New York with many hundred thousand. The great seedsmen of that city were in a hurry to get them, for their customers all over the country were waiting for them. The docks were crowded with their drays. Their custom house brokers were hastening through the routine to further their wishes. One importer alone paid that day more than \$1,500 duty on tulips, jonquils, lilies and other like little things.

What is the lesson the MANUFACTURERS' RECORD would teach by these examples? This, that the South has within her broad and fertile acres thousands of little things, "unconsidered trifles," that may be turned to account and made the basis of a large and lucrative business.

IN to-day's issue of the MANUFACTURERS' RECORD we give a second letter on Louisville. It will be noticed that one of the strongest points made by the people of that city as a reason for its rapid growth is the cheapness of land for factories and the cheapness of good homes for workmen. In most of the progressive cities of the South, cheap land or, in many cases, free land for factories can be secured, but in many of them good residences for the laboring classes cannot be had, except at high figures. The towns that hope to imitate Louisville's solid and substantial growth must imitate her example in providing cheap homes for the people.

An Excellent Move.

The Cape Fear & Yadkin Valley Railroad Co., of North Carolina, which has been very enterprising in making known the resources and developments tributary to their line, have now gone a step further and decided to make a permanent exhibit of the minerals and timbers of the country which their road traverses. Mr. J. W. Trythe, general superintendent, has issued the following notice:

"It is our purpose to make a collection of agricultural products, minerals, ores, woods and manufactured articles, in fine, a collection of specimens of everything of commercial interest that is raised, found or made along the line of the Cape Fear & Yadkin Valley Railway, for the purpose of attracting the attention of investors and settlers.

The company has a well-lighted room, forty feet square, over its passenger station at Greensboro, where a creditable exhibit can be made; it is believed that it will be visited by large numbers of persons passing through Greensboro, and result in much good to contributors, as well as to the road.

Parties desiring to contribute articles for exhibit will please notify the undersigned what they wish to contribute, and they will be notified which articles to send forward; this method is adopted to avoid getting a large number of specimens of one article from the same section. This refers, particularly, to agricultural products, such as grain, etc., and to woods.

Specimens of grains, and such other articles as will be exhibited in glass jars, should be about two quarts in quantity.

Specimens of woods and timbers should be logs cut from the body of the tree, eighteen inches long, with bark left on. From these blocks the finished specimens will be made. Specimens of rare woods are desired.

Specimens of building stones should be six inch cubes, one side polished, one side bush hammered, one side chiseled, and one side showing the cleavage.

The following information should be sent with each article for exhibit: Name of article, name of contributor, county, State, and with samples of minerals, ores, building stones, etc., should also be given the distance from mine or quarry to the railroad, the name of the nearest station, to what extent developed, etc.

Articles for exhibit should be compactly packed and marked "For Exhibit," Cape Fear & Yadkin Valley Railway Co., Greensboro, N. C., except woods, which should be sent to Fayetteville, N. C.

Agents will forward such packages free."

A FRIEND who is traveling in the South has lately passed through Decatur several times, and was in that town again last Friday. From a private letter we make the following extract:

I have just come in from a ride to all parts of Decatur. It is a wonder. They did not begin to do anything until March. For the length of time, it beats anything ever heard of in the way of improvements and buildings. The sewerage system is very thorough; they are in places tunneling through the bluff 27 feet under the surface in constructing sewers. The street car track is laid to the new business part of the town. The nice moderate size hotel is nearing completion, while the monstrous big one (which is to be about 600x300 feet) is begun; the ground floor of the new union depot is laid; the cotton compress is up, and fine residences are going up like magic, as it seems to one who has not seen the place for a few weeks.

The Protective Tariff and the Farmer.

A pamphlet of forty pages has come to this office bearing the above title. It is a review of "the annual address of Col. Robert Beverly, of Virginia, president of the Farmers' National Congress of the United States, at its sixth annual meeting at St. Paul, Minnesota, on the 26th August, 1886." This review is by Mr. S. Bassett French, of Manchester, Va., a life member of the agricultural society of that State, of which Col. Beverly is the president. It is seldom that a public utterance is subjected to such entirely good natured, and at the same time caustic criticism. Mr. French disclaims all desire for publicity or controversy. He is "simply a plain citizen," who was once a moderate free trader, who had "given the subject no particular study," but had been "content to follow the dogma to 'buy where you could buy cheapest, and sell where you could sell highest,' as the true doctrine." But later he was led to study the subject, and the conclusions he reached he thus states: "When I saw that when free trade prevailed American industries were stunned if not paralyzed, that when protection was the policy the country advanced, I could not resist the conclusion that, however true the theory of free trade may be, when reduced to practice it had proved a blight upon the country; * * * and especially when I now observe that the growth of the nation in all the elements of wealth, power and prosperity has been greater in the short period of a quarter of a century than it had made in all the preceding 70 years of its existence, I am constrained to admit with Mr. Jefferson that experience has taught me that American industries must now stand by the side of agriculture. I am not ashamed to change my opinions when convinced of my error, nor am I afraid to avow the change."

This frank statement of the reasons that governed Mr. French in writing his review commends the pamphlet to the reader, be his opinions on the subject what they may. It is ingenuous, which is more than can be said of the speech as published, which called out this review. Col. Beverly carried his address to St. Paul in print and delivered it in full, as he intended to have it go before the public. But there were things in it that were not approved by his audience, and the pamphlets prepared for distribution were not generally given out. Some few, however, went to personal friends of the orator, and one of these was used by the reviewer. It is but fair to the latter to say that he intended to have it appear in the Southern Planter and Farmer, which had published a careful revision of Col. Beverly's address, "but for reasons," says the reviewer, "to which I could not demur, the editor declined to give it place." There was nothing left, therefore, to this intelligent gentleman than to put out the review on his own responsibility and at his own cost. In doing so Mr. French has, in the opinion of the MANUFACTURERS' RECORD, done a great thing for the agriculture of the country, for he has proven by indisputable figures, by well-attested facts, and by repeated references to history, that Colonel Beverly was not only wrong in his arguments, but in his statements on which they were based. Reading these caustic criticisms paragraph by paragraph, noting the gross errors and extravagances that they expose, the reader is brought irresistibly to the same conclusion as the reviewer, "that of all the productions that have emanated from the brain of a free trade enthusiast," this address of Colonel Beverly's "is the wildest, most sweeping, extravagant and reckless."

The first error of statement referred to is so palpable that the wonder is its author should have dared to make it. He declared to his audience of farmers: "We are a majority of all the voters, by virtue of whose suffrage the President holds his great office;

by virtue of whose suffrage every public servant in the nation holds his place and gets his pay." "Senators and representatives must now be made to understand," said he, that they must legislate for our interests, or "thirty millions of farmers will know the reason why." "We have borne and forborne until forbearance has long since ceased to be a virtue," exclaimed the orator, "and let us cause them (the congress) to know that there are American farmers whose allegiance cannot be purchased by a package of rotten seed or a flimsy public document."

The fallacy of Col. Beverly's claim in respect both to the numerical strength and political power of the farmer class is the occasion for many amusing sarcasms, as also for a comparative analysis, based upon the figures of the tenth census, which is here reproduced. Those figures give the total population of the United States in 1880 as 50,155,785 persons. The official analysis shows that but 17,392,099 of these were engaged in "gainful work." Of these 7,670,493 were classed as agriculturists, and 9,721,606 persons as occupied with other gainful work. In 1880 there were only 12,830,349 males in the United States over the age of 21 years, while the returns of the presidential vote in 1884 showed that 10,048,061 citizens cast their ballots. Taking the census as a basis of estimate, and distributing the vote in accordance with the official analysis of population, Mr. French obtains the following results:

| | |
|--|------------|
| Possible number of voters (census 1880)..... | 12,830,349 |
| Distributed upon the basis of relative strength according to the foregoing analysis— | |
| To agriculture..... | 2,687,883 |
| To those engaged in other gainful work..... | 3,392,666 |
| To those engaged in no gainful work..... | 6,750,400 |
| | 12,830,349 |

| | |
|---|------------|
| Farmers in a minority of..... | 10,153,349 |
| But the whole number of votes cast were only..... | 10,048,061 |
| Distributed, upon the same basis, as follows— | |
| To farmers..... | 2,606,686 |
| To other gainful workers..... | 2,656,995 |
| To all others..... | 5,065,995 |
| | 10,048,061 |
| A majority against farmers..... | 8,351,495 |

As between the candidates, the vote was distributed as follows:

| | |
|--------------------|------------|
| For Cleveland..... | 4,462,231 |
| For Blaine..... | 4,016,859 |
| Scattering..... | 1,568,951 |
| | 10,048,061 |

Then tabulating the vote upon the relative strength of the different classes of population, we will see, that the vote for Mr. Cleveland was composed of—

| | |
|-------------------------------|-----------|
| 931,950 farmers, | |
| 1,180,190 other wage earners, | |
| 2,350,759 all others. | |
| Total..... | 4,462,811 |

These figures expose "the fallacy of Col. Beverly's claim, in respect both to the numerical strength and political power of the farmer" class. The reviewer concedes to Col. Beverly, as to every other citizen, the right of individual opinions. They do not concern the public, but "his official utterances" as president of the greatest representative body of farmers that meets annually in this country "are entitled to consideration."

"No doubt is suggested of President Beverly's faith in the verity of every word which fell from his lips, reported to have been delivered before the Farmers' Congress. Doubtless he had brought himself to a belief that the statements as he made them to his brother farmers were literally true; that they were 'a majority of all the voters,' and that there were 30,000,000 of farmers in the United States. His mistake was that he did not know what he was talking about, and did not take the trouble properly to inform himself." Our reviewer might have added that Col. Beverly was not singular in this respect. It is the common blunder of most American free trade writers and orators. They "mistake common rumor for truth," and do not "take the trouble to examine the record," which shows "how wide the arrow of assertion flies from the mark of fact."

A dismal picture was drawn by the distinguished speaker of the present condition of the agricultural population of this country. "From every rural hamlet and homestead throughout the land the outlook is

shrouded with gloom and darkness. The products of American agriculture are barred out from equal competition in every market in the world, where we are placed at a disadvantage with every nation on the earth, from Africa to Greenland." And in doleful tones he asked, "How is the rightful voice of agriculture to be heard and felt? No representative in the cabinet; none in the Senate; in a helpless, pitiful minority in the House of Representatives."

Again the kindly critic exposes the ignorance of the speaker. There is no discrimination made against American products by any foreign power. With every nation with which we have commercial treaties "the United States stands on the same footing as the most favored nation." "In 1886, under a protective tariff, we exported to these nations breadstuffs alone to the value of \$126,000,000. Include all the products of the soil, exclusive of corn, tobacco, lumber and all other cereals save wheat, President Beverly will find that the exports of the surplus of the American 'life blood of the soil' is more than one-sixth of the whole foreign trade, imports and exports, domestic and foreign, for the year ended June 30, 1886—more than one-third of the domestic exports for the same year. Add cotton, oil cake, seeds and sugar and the exports of the products of the soil are valued at over 64.46 per cent. of the total domestic exports, including merchandise and specie. To Belgium we sent \$23,294,395, to France \$41,681,746, to England \$301,286,970, to Canada \$33,467,800, to Germany \$61,961,193, to Ireland \$18,561,293, to Scotland \$28,605,436, amounting to \$508,858,833, and to 33 other nations \$144,899,440, which absorb the total export values, except \$12,206,006, which were sent to unnamed countries, which latter possibly may include the other great nations 'from Africa to Greenland.' Total exports 1886, \$665,964,239."

Mr. Atkinson, in the January number of the Century, affords the following:

| Total Value of Agricultural Products Exported from the United States. | | Per cent. of value of all exports. |
|---|--------------|------------------------------------|
| 1860..... | \$25,560,972 | 81.14 |
| 1870..... | 361,188,483 | 79.34 |
| 1875..... | 430,306,570 | 76.95 |
| 1880..... | 685,961,091 | 83.25 |
| 1885..... | 539,172,566 | 72.96 |

Of the total products of the soil, one year with another, (excepting cotton and tobacco) more than 92 per cent. find a market here at home, "even under the malign influence of bad laws, and mal-administration," according to President Beverly, and the foregoing statements of exports, under the foreign policy of the government, "shaped to the utter neglect and ruin of the interests of the soil," show how utterly unreliable are the statements contained in this address of President Beverly, as delivered at St. Paul.

Under the protective policy of the Government, which has obtained since 1861, so anathematized by President Beverly as the cause of this sad condition "of the American farmers," the present productions of the earth, as compared with those of 1860, the last year of the tariff for revenue, tell in trumpet notes, how much of verity rests in the charges that they were "shaped to the utter neglect and ruin of the interests of the soil." In 1860, the year previous to the War of Secession, the thrifty (?) farmers of the United States, stimulated by the benign (?) influence of free-trade, which had then prevailed for fourteen years, produced one hundred and seventy-three millions bushels of wheat, and eight hundred millions bushels of Indian corn—say, five bushels of wheat and twenty-five bushels of corn per head of, say, thirty-two millions of people.

In 1880, "under the malign influence of bad laws, badly administered, under policies of government, shaped to the utter neglect and ruin of the interests of the soil," the farmers produced four hundred and fifty-nine millions bushels of wheat, and seven hundred and fifty millions bushels of corn; say, nine bushels of wheat and thirty-

four bushels of corn per capita of a population of fifty-one millions of people.

The statistician, Edward Atkinson, in the January number of the Century, 1887, gives the product of grain of all kinds, per capita, and the ratio of increase of grain to the increase of population, from 1865 to 1885, inclusive:

| | Per capita. | Ratio to population. |
|-----------------------|-------------|----------------------|
| For 1865—bushels..... | 32.50 | 1.00 |
| For 1870—bushels..... | 50.30 | 1.30 |
| For 1880—bushels..... | 48.80 | 1.50 |
| For 1885—bushels..... | 52.50 | 1.60 |

It would seem that these statistics were enough to demolish the whole frame work set up by Col. Beverly in his official address at St. Paul. But they do not satisfy our reviewer. He is a thorough business man, and when he has a job in hand he does not stop until it is completed. Quoting from the address once more, he replies to the following terrible paragraph:

"Unless the government, State and national, under which we live, speedily remodel the existing policy and use their future efforts to promote national and State prosperity and progress upon the industrial and business interests of the people, and above all and before all upon the interest of the nation's domain and homestead, the soil itself and those who dig it, a crisis and catastrophe cannot long be deferred. The nature and extent of that catastrophe none can foretell until it bursts upon us." (Omitted in Southern Planter, and in published report of proceedings.)

"*Me Hercule!*" cries the reviewer, "another threatened attempt to disrupt the government—another upheaval, this time in the interest of the corn grower, the meat producer, and not of the cotton planter? 'Insatiate, Beverly will not two suffice? Nullification fizzled. Secession failed. Which will be repeated? Or is it that this broad-shouldered agricultural Powderly purposes the gentler measure of a 'general strike' of his '30,000,000 of farmers' and to boycott presidents, senators, representatives, governors, and all and every public servant in the nation, who hold their place and get their pay by virtue of the farmers' suffrage."

Next, Mr. French proceeds to consider that other fallacy commonly held by all free traders "that a protective tariff is a tax on the consumer, and is added not only to the cost of the imported articles, but to that of all like articles of domestic manufacture," and he asks—if this is really such a great imposition on the people, "how is it that our friend, Col. Beverly, has foreborne to protest in the name of the bread eaters of the United States against the duty on wheat? 7,000,000 of the people of the United States are classed as agriculturists, so it may be said they do not buy breadstuffs, but how is it with the remaining 48,000,000, who eat, but do not produce? It is a great wrong to tax the farmer 45 per cent. on all the woolen goods made in the United States, but no wrong to tax all of the other 48,000,000 20 cents on every bushel of wheat and 15 cents on every bushel of potatoes they eat, for the benefit of these 7,000,000 of farmers. If the theory of the free trader be correct, then the price of every bushel of wheat or potatoes sold by the American farmer is advanced 20 and 15 cents respectively on every other American consumer, and ought not these duties to be removed as promptly as the Secretary of the Treasury recommends the repeal of the duty on wool? Certainly, and so the secretary has advised Congress to repeal the duties on wheat, potatoes, etc., doubtless, impelled by the idea that this taxation on the 48,000,000 "who could only suffer, not enjoy," is not a proposition "to lay taxes for the general welfare."

Yes, Col. Beverly, by the showing of your brother free-traders, the people of the United States are taxed for the benefit of the farmers over \$450,000,000 one year with another. Take the six articles of wheat,

barley, potatoes, corn, oats and rye, and test the point by the returns of 1886:

| Quantity re- ceived. | Quantity re- ported. | Quantity re- ceived for consumption. | Rate of duty, per bushel. | Rate of tax paid by consumers in the U. S. according to the free trade theory. |
|-------------------------|-------------------------|--|---------------------------------|--|
| Wheat..... | 459,459,903 | 57,759,909 | 15 cents. | \$8,344,938.85 |
| Barley..... | 44,133,495 | 4,386,934 | 15 cents. | 6,579,967.80 |
| Potatoes..... | 169,438,539 | 700,000 | 15 cents. | 5,313,780.85 |
| Corn..... | 1,754,851,535 | 63,654,433 | 10 cents. | 16,909,610.80 |
| Oats..... | 407,858,999 | 5,479,634 | 10 cents. | 4,079,634.00 |
| Rye..... | 59,831,595 | 19,694,888 | 10 cents. | 1,969,488.00 |
| Total..... | 5,835,609,666 | 138,396,444 | | \$33,343,937.61 |

This amount of tax imposed on the consumers of grain in the United States, calculated in accordance with the free-trade dogma that the duty is added to the price, is \$30,534,741 in excess of the tax which Mr. Secretary Manning says "was the increase of price we paid on commodities imported hither and here consumed" in the fiscal year ending June 30, 1886, (\$192,905,023.) Then on these six articles of agricultural products alone the increase of the price was the tax, \$323,439,764, paid "for the benefit of the neglected and oppressed farmer." Can absurdity go farther? enquired Mr. Kelly, of Pennsylvania, in a speech in Congress in 1878, who presented a table for 1877, (upon which the above is framed) by which the tax for that year was \$256,465,681.

We should be glad to quote more at length from the long array of facts and authorities which Mr. French has grouped in this masterly review, and to supply many specimens of the quaint humor which gives life to it, but space will not permit, and we must be content with reproducing the closing paragraphs. These are full of merit and contain the fundamental ideas of American protection.

The farmer should be protected—so the manufacturer—so the artisan—so the common laborer—so every industry in danger of competition from foreign rivals. But above all, and before all, protection to American labor. Without labor, lands and mines, agriculture and manufactures, trade and commerce—all industries—are worthless. "The laborer is worthy of his hire."

In this country there is no universal wage-rate. Under our constitution there can be none. The price of labor in every locality is regulated by the surroundings of the place where the labor is performed, the cost of living, the skill employed, &c. The employer, also, has his correlative rights. He is entitled to compensation for his plant—for his capital employed. For the expense of administration, including wages to his employees, taxes, insurance, &c. There need be no unpleasant conflict—"sum cuique tribuitur,"—which, being liberally interpreted, is: "Do unto others as you would have others to do unto you." Let England—let all the nations of the earth take care of themselves; as for ourselves, let us "legislate for the United States and not for the whole world; * * it is our glory that the American laborer is more intelligent and better paid than his foreign competitors," and by God's help and the policy of protection, we mean that this glory shall never be impaired.

The London Times, in its editorial of July 14th, 1880, clearly presents the pith and purpose of the American protective tariff: "The United States do not approach

the question from the same standpoint as ourselves. The object of their statesmen is not to secure the largest amount of wealth for the country generally, but to keep up, by whatever means, the standard of comfort among the laboring classes." That is the object and aim of the American protective system—"shaped," as Col Beverly would have it, "to the utter neglect and ruin of the interests of the soil."

Sir Edward Sullivan, in speaking of our countrymen, says: "They understand," which Col Beverly does not seem to do, or appreciate, "that manufacturing and agricultural industries are inseparably bound together, that prospering manufactures means prosperous agriculture, and vice versa; that each consumes what the other produces; that each is the best consumer of the other."

"No man can pretend that the present tariff is perfect—is faultless in its rates—I do not discuss them, but the principle of protection. Revise the rates, correct, amend, but never wander from the great polarity of protection to American industries, which is protection to American labor."

A Big Feat in Mill Building.

It was but a few months ago when the MANUFACTURERS' RECORD announced that a \$5,000,000 company would enter the field as a competitor of the American Cotton Oil Trust. Reports to the contrary were freely circulated, and for a time it seemed that only one other paper in the country besides the MANUFACTURERS' RECORD had investigated the matter closely enough to know that, despite the efforts of interested parties to prove that this was simply a stock jobbing scheme, the enterprise was in good hands and would be carried through. We welcomed it as a competitor of that great monopoly, the Cotton Oil Trust Co., which seems to have been born of Standard Oil parentage, and which was seeking to control the entire cotton seed oil business of the country. The new company was organized as the Southern Cotton Oil Co., and the erection of the most perfect oil mills ever planned in this country was commenced. Already three of these great mills have been started up, and five more will be completed and ready for work on or before October 1st. This is a feat in mill building that, it is believed, has never been paralleled in America or any other country, and the managers of this company very justly feel proud of it. Eight immense cotton seed oil mills, planned, built and equipped with the most perfect machinery made, inside of a few months, by one company is a wonderful piece of work. These new mills, with their daily capacity, are situated as follows: Houston, Texas, 300 tons; New Orleans, 300 tons; Little Rock, 200 tons; Memphis, 200 tons; Montgomery, 200 tons; Atlanta, 200 tons; Savannah, 100 tons; Columbia, S. C., 100 tons. Aggregate capacity 1,600 tons of seed per day. "These mills," says the Cincinnati Price Current, "have a capacity for handling during the season more than 50 per cent. of the quantity of cotton-seed which heretofore has been annually handled by the entire system of mills in the Trust monopoly, and with the improvements commanded by these new mills cotton seed can be converted into oil and other products at a reduction in cost compared with the average of the mills owned by the Trust, which of itself would be equivalent to a good manufacturing profit."

LOUISVILLE, KY.

A Wonderful Increase in Population, Trade and Manufactures.

Cheap Land for Factories and Cheap Homes for Her Workmen Two of Louisville's Great Advantages.

[Special correspondence MANUFACTURERS' RECORD.]

LOUISVILLE, Ky., Sept. 10, 1887.

If my first letter conveyed a proper idea of the force, wealth and enterprise that make Louisville the largest and most important manufacturing and commercial city of the South, the present letter will be devoted to giving an idea of how rapidly she is growing under the new order of things, and will show some of the results obtained during the first eight months of 1887. It is probable that during that time the growth of Louisville has exceeded that of any other Western or Southern city. While it may appear extreme to claim that the population has grown from 128,000 in 1880 to 200,000 in 1887, the statistics of increase for this year will convince all doubters that the growth claimed is not only possible but more than probable. The Board of Trade has just made up some comparisons of the commercial business of Louisville for the first seven months and four weeks of 1887, as shown by the clearing-house reports. The increase of clearings for 32 weeks aggregate \$30,126,872, or about a million a week. The annual clearings for the previous five years were as follows:

| | |
|-----------|---------------|
| 1882..... | \$190,067,491 |
| 1883..... | 214,802,485 |
| 1884..... | 211,261,853 |
| 1885..... | 217,527,215 |
| 1886..... | 253,000,000 |

The clearings for the first seven months and four weeks of 1887 compared with the same period for 1886 are as follows:

| | Clearings. 1886. | Clearings. 1887. | Increase. |
|---------------|---------------------|---------------------|-------------|
| January..... | \$20,908,313 | \$22,302,372 | \$1,394,059 |
| February..... | 18,016,243 | 21,569,301 | 2,553,058 |
| March..... | 19,778,818 | 22,939,506 | 3,160,688 |
| April..... | 18,711,805 | 23,142,255 | 4,430,450 |
| May..... | 18,160,327 | 23,430,606 | 5,270,279 |
| June..... | 20,067,751 | 23,620,971 | 3,553,220 |
| July..... | 18,881,943 | 23,435,107 | 4,553,164 |
| 1-6 week Aug. | 8,112,587 | 8,049,174 | 63,413 |
| 31 week Aug. | 3,842,964 | 5,070,396 | 1,127,432 |
| 31 week Aug. | 3,884,271 | 4,849,809 | 965,538 |
| 4th w'k Aug. | 3,810,530 | 4,000,310 | 840,776 |

Totals.....\$151,197,941 \$181,354,813
Increase for seven months and four weeks.....\$30,126,872

This shows an increase of more than 20 per cent., and, if the ratio is preserved in proportion to the bulk of seasonal business during the fall and winter months, the aggregate increase will be between \$50,000,000 and \$60,000,000. The sum of this increase is more strikingly shown when compared with the total clearings of some well-known Western and Northwestern cities. The clearings of some of these for 1886 were as follows:

| | Clearings, 1886. |
|---------------------------------------|------------------|
| Detroit..... | \$106,000,000 |
| Cleveland..... | 120,000,000 |
| Indianapolis..... | 91,000,000 |
| Columbus..... | 92,000,000 |
| Memphis..... | 83,000,000 |
| Peoria..... | 40,000,000 |
| St. Joseph, Mo..... | 48,000,000 |
| Louisville..... | 233,000,000 |
| Louisville (increase alone 1887)..... | 52,000,000 |

The immense increase of business in Louisville can be more effectively grasped when it is stated, that the increase alone equals half the annual business of the city of Detroit and considerably more than half the annual business of Indianapolis.

During these seven months the statistics from the Board of Trade show that there have been 49 new manufacturing establishments started in Louisville, employing about 3,000 skilled adult workmen. Some of these are very large corporations, such as the Astoria Veneering Company's works, which were removed here from New York City, bringing a half million of capital and 300 workmen with them. The works cover 23 acres of ground, and so encouraged does the company feel with the out-

look already that they are now considering plans for the enlargement of the enterprise. This, by the way, is the largest establishment of its kind in the United States. The Ewald Rolling Mill removed here from St. Louis; the Southwestern Iron Manufactory removed to this place from Detroit, besides a large number of establishments that have organized here in that time are all in full tide of successful operation, and their development during the next year will in all probability still more largely increase the manufacturing capacities of the city. Besides these the great water and gas pipe establishment of Dennis Long, which is by far the largest in the United States, is now erecting a new building, which will nearly double its capacity and the number of its employees.

The B. F. Avery & Sons Plow Works, also the largest of its kind in the country, is greatly enlarging its capacity, and the Kentucky Wagon Manufacturing Co., which was established in 1870 on a small scale, and began drawing its supplies from the Northwest and the extreme South, is being enlarged until its capacity will exceed that of the great Northern firms engaged in the same business. The success of this firm upon such a great scale can be traced to the opening of the hardwood forests of Kentucky five years ago. Since then they have drawn all their supplies from near home, and have been able to get better wood and cheaper supplies of every sort.

A very convincing illustration of the advantages of Louisville as a manufacturing city is given in this particular case. Last spring when the Kentucky Wagon Manufacturing Co. concluded to concentrate and enlarge its establishment it received letters from various cities offering inducements to remove thither. St. Paul, Birmingham, Anniston and Chattanooga made liberal offers of free land and capital to attract this large enterprise to those cities. The company, however, after looking over the whole field considered the advantages of Louisville so superior to any cash inducements that could be offered, that it paid \$40,000 cash for 30 acres of ground in the suburbs of this city, upon which they are now erecting five acres of fire-proof building for the accommodation of their machinery and work.

INDUCEMENTS FOR THE MANUFACTURER AND THE CAPITALIST.

Louisville occupies the center of the greatest area of actual consumption in the United States. A radius of 800 miles contains nearly 12,000,000 population, and the region is penetrated by a network of railroads, twelve of which originate in this city. The raw material requisite for all native manufactures can be more readily obtained here than in any Western city. Louisville is exactly in the center of the largest territory where cotton, wool, iron and lumber are produced and consumed in largest quantities, and the advantages of such a position ought to be apparent to the manufacturer. It occupies the natural position to be a central exchange for the reception, manufacture and distribution of all these goods. In addition to the railroad system, the Ohio river offers water competition to every market in the Mississippi and Ohio valleys. Therefore one of the greatest advantages Louisville has is its remarkable position as a distributing point. Besides, land is cheaper here and freights will be as low as could be obtained in any Western city, while living is very much cheaper than in the East. A greater portion of the product of the manufactures could be sold here in Louisville without commission, and, besides, St. Louis, Kansas City, Chicago and Cincinnati would take the products which could be sold there without an agent. Take for instance the cotton which goes East for manufacture. The manufacturer must pay freight

EDUCATIONAL ADVANTAGES.

Louisville abounds in excellent schools, public and private. Her public schools are second to none in the country, and are the especial care and pride of her citizens. There are 34 public schools, including a male and a female high school, each with a full collegiate course of study. For the years 1885 and 1886 the number of pupils in public schools were 16,926; number of teachers 404, while the cost of the schools both years amounted to \$313,571.56. Besides the schools controlled and supported by the city, there are numerous private schools and seminaries equal to the best anywhere. Also four large medical colleges, a law school, two colleges of pharmacy, two theological schools and a public library of more than 40,000 volumes.

INTERVIEWS WITH SEVERAL OF THE PROMINENT CITIZENS OF LOUISVILLE.

In conversation with Mr. Young E. Allison, secretary of the Board of Trade Committee on Industrial & Commercial Improvement, one of the young men of the New South, intelligent, capable, and doing a power of good for the city of Louisville by his important and most excellent work, your representative put to him the following questions:

"To what causes do you attribute the influx of capital to your city in the up-building of manufactures and industries?"

"The causes are potent to any one who thoroughly understands the advantages and resources of Louisville, and the relative importance of this city in a commercial and manufacturing standpoint. Louisville is better known as a manufacturing center, and is near an extensive field of demand, with cheap transportation both by rail and water.

Louisville asserts herself as a place for the home-seeker and the manufacturer in the fact that building is cheaper, ground is cheaper, fuel is cheaper, while there is abundance of labor here. There is no disputing the fact that living is cheaper here than in most cities of the population of Louisville. The retail market reports will show all kinds of food supplies cheaper than in any other place in the United States, the reason being very obvious; the fine farming section adjacent to Louisville, with a rotation and diversity of crops, tells the story in no uncertain manner. In addition to food being cheap, ground is cheap for the purpose of living, fuel is cheaper than in any other Western city, while the transportation facilities provide for workmen to obtain comfortable homes, and yet not be too far away from their place of employment.

The surety of good returns from manufacturing industries is a wonderful advantage in Louisville's growth. For instance, the jeans business, in which Louisville now leads the world, was established here less than ten years ago in a very small way, and by people who had no previous experience, but it began to steadily grow until now there are practically in Louisville, including New Albany, 5 or 6 factories employing about 1,500 looms, and about 2,500 hands. During the past six months 125 extra looms have been added, which are being constantly increased.

Louisville being located at the threshold of the Northwest, she can ship her products to the four quarters of the globe either by rail or by water.

In each of the following industries she is the largest market in the United States, and in some the largest in the world, viz:

Tobacco.—Sales from January 1, 1885, to January 1, 1886, over 127,000 hog-heads.

Kentucky jeans and jeans clothing.—Annual sales, 5,500,000 yards, representing in value about \$1,500,000.

Cast gas and water pipe.—120 tons per diem, or about 40,000 tons per annum.

Mules.—Sales over 12,000 per annum.

Plows.—Sales over 100,000 per annum.

Cement.—Sales, 850,000 barrels per annum.

It is the largest and best market for fine oak-tanned sole leather, which for quality is unsurpassed in the country; also the largest in the manufacture of oak-tanned harness leather. For fine Bourbon whiskeys it is by large odds the greatest market in the world.

Louisville invites the mechanic, manufacturer and all desirous of seeking home and investment to cast in their lots with her, assuring them a hearty welcome and opportunity for good and safe returns; and the Louisville Board of Trade invites correspondence, and will cheerfully and promptly answer all inquiries upon these matters.

Louisville is headquarters of the trade which embraces the chief consumers of our goods, and is nearer the center of the exchange of commodities. Labor is much cheaper and more readily obtained, and we are not in constant dread of strikes and labor dissensions. The cheapness of fuel and the cheapness of living, and the exemption of manufacturing industries to a great extent from heavy taxes these are a few of the important reasons why capital is seeking investment here in different kinds of manufactures.

"There are many other reasons why Louisville is so much more favorable for the investment of capital and for the erection of manufacturing establishments," remarked Mr. Allison, "than those above mentioned. For instance, the fact that steam is a third cheaper here than in any other large city in the country is a wonderful stimulus in the building up of her manufacturing interests.

The mines around Brandenburg and that country have untold wealth of fuel, which can be brought here and sold at but a slight advance in the cost of mining. The great railway system of Louisville, which has been fostered and encouraged by the policy of imposing as few restrictions as possible, has had the effect of making ground for residence and manufacturing purposes cheaper than in any city in the United States, is a very important element in the growth and in the fostering of all kinds of manufacturing. These facts, taken together with the climate, healthfulness, cheapness of living and the proximity to the most of the world, ensures a prosperity to Louisville which will continue until she will become the manufacturing mart and commercial center of the South."

It was also the pleasure of your representative to meet Mr. John A. Stratton, of the firm of John A. Stratton & Co., one of the progressive men of the city, when the following interview took place:

"Will you give the MANUFACTURERS' RECORD a resume of what you think are the causes leading to the advancement and improvement of Louisville as a business and commercial center?"

"Very willingly, and with much pleasure. The chief reason why Louisville is coming so grandly to the front is on account of the gradual and healthy increase in trade and in manufactures, together with the influx of population, which shows an increase of over 10,000 a year. Another very important reason is the remarkable cheapness of real estate. No city in the Union has such cheap real estate in comparison to the advantages and resources. The highest resident property in the city is only \$125 a foot. A most important factor in the growth of Louisville is that it bears a striking relation to Philadelphia in its home life—nearly every mechanic and artisan owns his home. Our motive power is cheaper here by one-third than the water power is at Fall River, Mass. Resident property for cottages, homes and the like, inside the city limits, within one square of the street

car lines, can be had from \$8 to \$25 per foot. The wonderful street railway system of our city is a factor in her growth. There are about 125 miles of street car and suburban lines, running over the 144 miles of streets of the city. Thus it will be seen that there is scarcely a block of ground in the twelve and a-half square miles of territory covered by Louisville that is not really accessible by car. The lumber trade and saw mill industry, the furniture interests, rolling mill business, together with the leather trade, offer so many inducements in their respective lines that it is hardly possible to supply the demands of trade in these very important manufacturing and industrial pursuits. Our tobacco business is a great lever in our city's growth. There are fifteen large manufactories of plug tobacco in the city. Many make brands that are celebrated, and supply trade in every part of the country. Statistics show that the trade in manufactured tobacco of Louisville houses in the past four years has increased fourfold. In other words, there is scarcely a manufacturing industry that is not well represented here, and Louisville is fast becoming a manufacturing center. It is already a grand manufacturing mart, when it is taken into consideration that the assessed valuation of city property is put at \$67,000,000, of which \$55,000,000 is invested in factories."

Hailing Col. Media, one of Louisville's pushing, far-seeing and able real estate men, on his way to New York, I asked him if he would give the representative of the MANUFACTURERS' RECORD a few points as to the growth of the city in industrial matters and methods. He replied: "Most heartily, for the MANUFACTURERS' RECORD is the only industrial paper I look to for news throughout the country. It is my text book on all matters pertaining to the country's progress and development, especially that of the South. You would know then why Louisville is becoming a great manufacturing center and is pushing forward in all matters pertaining to industrial progress. Here are the facts in a nutshell:

Cheap land for manufacturing sites, residences and buildings. Even those manufactories whose necessities require their location within the city can purchase ground cheaper than in any Western city. It is a fact that ground can be purchased in this rapidly growing city of nearly 200,000 inhabitants as cheap as it can be obtained in many cities of half the population. It is cheap because it is abundant, and the city is not hemmed in by any natural barriers. Cheapness of living is a great favor in our growth. Within fifty miles of the city an abundance of cattle, hogs and sheep can be found; in fact, a much larger supply than is necessary to meet the demand for home consumption. As a matter of fact, Louisville's average annual shipment for six years past has been 30,000 head of cattle, 60,000 head of hogs and 100,000 head of sheep, nearly all drawn from the farming country adjacent. As a result, fresh meat is cheaper here by from 5 to 15 per cent. than in Eastern cities.

In the matter of rent and living there is probably no city which offers such wonderful advantages and inducements. Rent is nearly 12 per cent. less here in comparison to other large as well as smaller cities. Placing the annual expenses of a workingman's family at \$600—a high estimate—a year, the food and shelter will cost \$300 a year. The difference upon these two items in the cost of living is 8 per cent. at a low estimate as compared with Birmingham, Nashville and Chattanooga, and probably much more as compared with the towns of the East, where land is higher and the food-producing districts more distant.

This difference of 8 per cent. in favor of

Louisville in the cost of one-half a laborer's expenses will, by differences in the cost of clothing, which is made up here from cloth also manufactured here, be increased to 5 per cent. at least on the total cost of living. This gives a good margin, both for employer and employee."

ADVANTAGES AND RESOURCES OF THE STATE OF KENTUCKY.

The climate is remarkably pleasant, though variable. The mean annual temperature is about 55°. The thermometer often falls to 20° in winter, and sometimes, though rarely, goes below zero; in summer it rises to 90° and very rarely to 100°.

Coal is found in every county in a line between the Ohio river and the Tennessee State line. The thickness varies from 24 to 54 inches. In the northern part of this district are immense deposits of iron ore, and in close conjunction with coal beds.

There are in woodland and forests over 10,000,000 acres in this State, the characteristic feature of which is in the broad-leaved species of which it is largely composed. Nearly every variety of wood is found in Kentucky, especially the oak, which attains prodigious size, while the cherry, poplar and chestnut here reach a size unknown in other parts of the country. The immense number of manufactories in this State, and the rapidity with which they yield returns, is a substantial evidence of the growth of the State. The growth of the manufactures in Kentucky include a wide diversity of enterprises, ensuring a healthy and permanent future.

The waterways of Kentucky are unsurpassed, and the State is most remarkably ramified by streams, many of them having their rise in an imperishable source—the Cumberland mountains. There are nearly 1,500 miles of navigable water found in Kentucky, the State having a river boundary of 813 miles. No State in the Union has a frontage on navigable rivers equal to Kentucky. This ensures to the State cheap transportation in the future for the abundant forests and deposits of coal and iron ores contiguous to the streams.

The water power is magnificent, affording opportunities for millions of horse power in factories of all kinds and descriptions. The soil is excellently adapted to the growing of all the food articles necessary to the comfort and happiness of man, and is much more valuable than the great bodies of land of the great Northwest, its productiveness being too well known to need comment.

The agriculture of the State is one of the striking characteristics. The product for which Kentucky is most noted is tobacco. According to the last census report Kentucky takes first rank as a tobacco growing State. The entire area covered by the crop for 1879 (236,120 acres) shows an average yield per acre of 756.77 pounds.

The pasturage lands, or the blue-grass region, is the great attraction of Kentucky. Kentucky and the blue-grass region, or the blue-grass region and Kentucky, are famous the world over. In a great measure this State owes much of its wealth to this one feature, for here is the mart from which the best stock of horses and cattle are procured. This blue-grass region has an area of 10,000 square miles, or one-fourth the State. Its elevation is from 800 to 1,150 feet above sea level. The proximity of the State of Kentucky to the marts of the country is a great feature. The State is in the very center of population, the United States Census for 1880 placing the center of population for the entire country in Kentucky, eight miles west by South from Cincinnati.

With such surroundings, and with all the natural advantages and resources known to man, the day is not far distant when Louisville will assert itself as the metropolis of the South and the grand industrial and manufacturing center of the Southwest.

HENTON A. HELPER.

SHEFFIELD,

◆ COLBERT COUNTY, ALA. ◆

The Iron Manufacturing Center of the South.

BEING at the *head of navigation*, and on the *south bank* of the Tennessee river, Sheffield is the *natural outlet* for the mineral and manufacturing products of Alabama and neighboring States seeking a water route to points on the Ohio and Mississippi rivers, and to the Gulf of Mexico, as well as the best *distributing point* over Alabama, Eastern Mississippi and East Tennessee, South Carolina, Georgia and Florida for Northern and Western produce, groceries, provisions, machinery, &c. *Four railroads* certain, and several others assured. *Principal shops of Memphis & Charleston Railroad* will be erected here pursuant to written contract. These will employ between *four hundred and five hundred mechanics*, and consequently, with their families, will make an increase in population of at least two thousand people. Shops of three other railroads are contracted to be located here.

◆ Five Blast Furnaces Now Under Construction, ◆

Of which one is nearly finished, and the remaining four contracted to completion next spring, have estimated capacity of 700 tons pig iron per day. This is 40 per cent. more than now manufactured at Birmingham, Alabama. Experts do not hesitate to say that *iron can be manufactured more cheaply* at Sheffield than at Birmingham, and its *river transportation facilities* will enable Sheffield iron to reach the principal markets at a saving of from

\$2.00 TO \$2.50 PER TON.

A first-class semi-weekly newspaper, printed by steam, is regularly issued. Furniture Factory, Bottling Works, Bakery, 3 Steam Brick Works, 2 Hand Brick Works, 2 Steam Wood-Working Establishments, Water Works, 2 Banks, a Savings Bank, and Steam Job Printing Office already in successful operation, and Iron Pipe Works, 15-ton Ice Machine and five story hotel, with all modern appliances, will be erected. The Cleveland Hotel, Park House and numerous boarding houses furnish accommodations to travelers. Postoffice, Telegraph Office and Express Office already established. Contracts have been made for the early erection of Electric Light Works, Paint Works and Agricultural Implement and Machine Works. Large Stove Works, Machine Shops, additional Iron Blast Furnaces, an extensive Charcoal and Chemical Plant, a large Rolling Mill and other manufacturing establishments under consideration, and will probably be built shortly.

Good Water. Free Public Schools and Churches. Health and Climate Unsurpassed.

Drainage excellent. Splendid opening for men of *push and energy*. No "Old Fogy" element here.

No better point for *profitable investment*.

◆ Sites for Manufacturing Enterprises, ◆

And for Free Public Schools and Churches

Donated by Sheffield Land, Iron & Coal Company.

Population January 1st, 1887, 700; now, (August 21st, 1887,) by actual count, 2,583. Increase of population, 300 per cent. in eight months, and only limited by accommodations.

Three years ago the site of Sheffield was cultivated as corn and cotton plantations, and was without a railroad. Numerous two and three-story brick business houses, and one and two-story dwellings have been, and are being erected. The class of buildings will compare favorably with those in cities of 20,000 inhabitants.

LIMESTONE of excellent quality for *fluxing iron* in unlimited quantities at the furnaces' sites. First-class building stone and brick clay abundant. Rich and extensive deposits of *brown hematite iron ore* within twenty miles, along the lines of *two Sheffield railroads*. The Sheffield & Birmingham Railroad runs through the heart of the *Warrior Coal Fields*, which abound in first-class *coking, steam, gas and grate coal*. *Timber* is abundant and cheap.

The *Memphis & Charleston Railroad* and the *Sheffield & Birmingham Railroad* are now in operation into Sheffield. The *Louisville & Nashville Railroad Co.* is now extending its *Nashville, Florence and Sheffield* division, which will be completed to Sheffield before the close of the year 1887. Surveys of three other railroads have been recently completed to Sheffield, which will soon be the *best combined river and railroad transportation center* in the South.

Every merchant and every established manufacturing enterprise is doing a profitable business. *More are needed.* For further information address

ALFRED H. MOSES, Vice-Prest. and Manager

Sheffield Land, Iron & Coal Co., - Sheffield, Ala.

Tuskaloosa, Ala.

— * ALABAMA'S NATURAL PITTSBURGH. * —

A Railroad and River Town of 6,000 Inhabitants, in the Coal, Iron and Timber District.

Healthful Location. Salubrious Climate. School Facilities Unequaled by any other town in the South.

— * SITUATED ON —

Queen & Crescent

— TRUNK LINE —

IN THE

Warrior Coal Field

AND ON THE

WARRIOR RIVER.

Only Navigable River touching the

Alabama Mineral Field.

Eight Months Navigation. Being Surveyed
now to be opened all the year round.

All Water Navigation to

❖ **MOBILE** ❖

AND THE

Entire Gulf and Atlantic Coasts.

— THE —

— **Tuskaloosa Northern Railroad** —

Is now under construction into the

MINERAL and TIMBER FIELDS.

— THE —

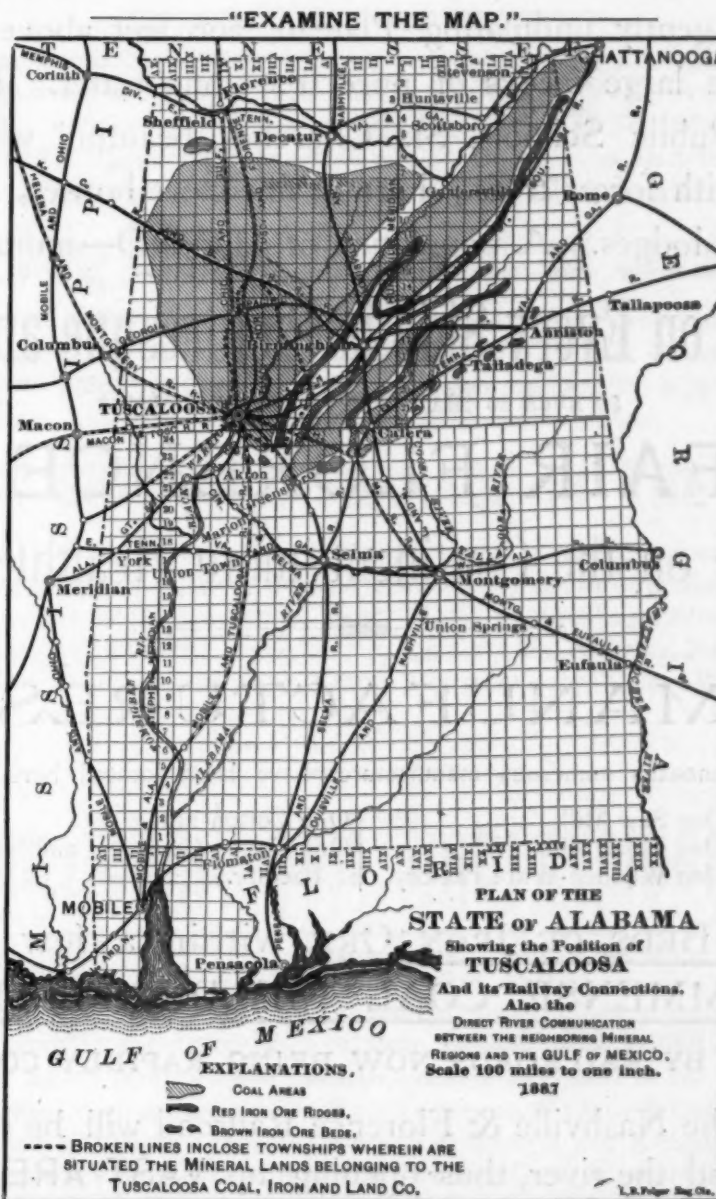
Macon & Tuskaloosa Railroad

Will soon be building into the

COTTON REGION OF MISSISSIPPI.

Fine Farming Region

Around and Below the City.



Superior Inducements

AND

— ADVANTAGES —

TO ALL

Manufactories Consuming

**WOOD,
IRON,
COTTON.**

FINE COKING COAL

In workable veins near city, fully tested.

— **The Fire Clay** —

Existing in inexhaustible quantities, has been
practically tested and pronounced

The Best yet Discovered in the South.

Street Car and Dummy Lines

NOW BUILDING.

— **Water Works and Electric Lights** —

TO BE PUT IN AT ONCE.

COTTON MILL

In Successful Operation.

ALSO

LARGE BRICK WORKS

COTTON-SEED OIL MILL, &c.

Manufacturers Seeking Locations in the South have here



THE GOLDEN OPPORTUNITY.



Many have availed themselves of it, but such is the wonderful richness of the resources of this section that there is

— **ROOM FOR ALL** —

THE Tuskaloosa Coal, Iron & Land Co.,

Owning 4,600 acres of city and suburban property, and 40,000 acres of mineral and timber lands, offers liberal inducements to manufacturers
to locate at Tuskaloosa, Nature's City, and invites correspondence and the fullest investigation of its claims. Address

W. C. JEMISON, President Tuskaloosa Coal, Iron & Land Co., **TUSKALOOSA, ALA.**

Florence, Ala.

County Seat of Lauderdale County.

At Head of Navigation on Tennessee River, and at Foot of Muscle Shoals Canal,
which will be open Jan. 1st, 1888.

SITUATED on a gently undulating Plateau, 200 feet above high-water mark, surrounded by three large creeks of pure free-stone water. It has a Court House, Two Colleges, Four Public Schools, Six Churches, beautiful wide streets, graded and graveled, and shaded with forest trees; Hotels, fine store houses, Masonic, Odd Fellows, K. of H. and L. of H. lodges. A population of 2,500—moral, social and hospitable.

— The Scenery on Every Side is Picturesque and Beautiful. —

SO MUCH SO THAT IT IS CALLED BY VISITORS

— 'FAIR FLORENCE.' —

There is no Place on the Continent more Healthful and Salubrious.

MANUFACTURES.

Within the last six months numerous manufactures have been located here, among the number:

| | | | |
|----------------------------|--------------------------|-----------------------------|-------------------------|
| Five Large Blast Furnaces. | One Saw Mill, | One Cotton Mill, | Two Brick Machines and |
| One Rolling Mill, | One Flour Mill, | One Cotton Compress and Ice | Three Hand-Brick Yards. |
| Three Planing Mills, | One Wooden-Ware Factory. | Factory. | |

There are VAST BEDS OF IRON ORE within a few miles North and
IMMENSE COAL FIELDS SOUTH

ACCESSIBLE BY RAILROADS NOW BEING RAPIDLY CONSTRUCTED.

By the 1st of January the Nashville & Florence Railroad will be completed, making three lines of railroad, and the river, thus opening up VAST AREAS OF TIMBER, IRON ORE, COAL, Marble, Limestone, Kaolin, Fire-Clay, and almost every kind of mineral and product.

THE LANDS IN THE SURROUNDING COUNTRY ARE FERTILE AND PRODUCTIVE.

All kinds of Grain, Grasses and Fruits grow to perfection. Springs and Water Courses are numerous, and grazing for Cattle is abundant for eight months of the year.

Pamphlets and maps furnished on application to

Florence Land, Mining & Manufacturing Company.

GADSDEN, ALA.

Reasons Why Capitalists and Manufacturers
SHOULD MAKE GADSDEN THE FIELD OF THEIR OPERATIONS.

GADSDEN is situated in the midst of the RICHEST MINERAL SECTION OF ALABAMA; is on the West bank of the Coosa River. This stream furnishes Cheap Transportation to the Coal Fields and Iron Veins and Beds that are found all along its banks.

The Sand Mountain, Lookout and Coosa Coal Fields are at our very doors. *This Coal Cokes equal to any Coal in the South.* The immense forests that cover the mountain and plains, and all along the Coosa and along the five railroads running to Gadsden, will for ages furnish as **CHEAP CHARCOAL AS CAN BE HAD ANYWHERE ON THE CONTINENT.** Limestone is found all around the city,—so Gadsden has in as great abundance, and at small cost, all descriptions of

➔ Rich Iron Ores, Fine Coking Coals, best class Charcoal, and Limestone for the quarrying. ⚡

And, as an Iron center, no place in the favored State of Alabama can compare with Gadsden, when we consider our Ore and Fuel supply, our abundant Water, our unequaled Climate, **UNINTERRUPTED HEALTH** and **FINE TRANSPORTATION FACILITIES.** We have the most **INVITING FIELD** to all seeking locations, either for manufacturing iron in any of its varieties, or for investment in any other industries. Gadsden has to-day in successful operation the

LARGEST CHARCOAL FURNACE IN THE STATE,

Has Four Large Saw Mills, with annual output of twenty million feet of the finest long-leaf Yellow Pine Lumber, three large Planing Mills, one Foundry and Machine Shop, two Gin and Flouring Mills, large Furniture, Sash and Door Factory, two Metallic Paint Mills, Ice Factory, a splendid system of Water Works, 80 pounds pressure, large steam Brick Works, and in course of construction a 100-ton Coke Furnace, being built by the Gadsden, Alabama, Furnace Co.; has stock subscribed for an additional Charcoal Furnace, has a National Bank, Cotton Compress, large Cotton Warehouse, handling 15,000 bales cotton, and a magnificent agricultural country all around us.

➔ The Gadsden Land and Improvement Company ⚡
OWNS 3,000 LOTS,

And invites capitalists and manufacturers to come to Gadsden and see its advantages, pledging themselves to donate to any manufactory locating here, and working twenty-five men or more, **GROUND UPON WHICH TO LOCATE PLANT**, accessible to railroad or river. *Our Railroads afford transportation facilities equal to any point in the South.*

The Rome & Decatur gives close connections with the East Tennessee, Virginia & Georgia and Louisville & Nashville systems, the Anniston & Cincinnati with East Tennessee, Virginia & Georgia and Richmond & Danville, also the Alabama Great Southern Railroad; the Tennessee & Coosa Railroad with Alabama Great Southern, also the Tennessee River at Gunterville and the Central Railroad, when built, from Casselton to Decatur, making us on the short line from Kansas City and the West to Atlanta and the South Atlantic Coast.

Lots are Sold on the Most Favorable Terms:

One-third CASH, balance in one and two years.

We have a population of over 4,000 good Schools, and Churches of all denominations; splendid system of Electric Lights, Telephone Communication over the city, also to Rome, Ga. Boats run regularly the year round on the Coosa, carrying U. S. mail and freights from this point to Rome, Ga., a distance by water of 154 miles.

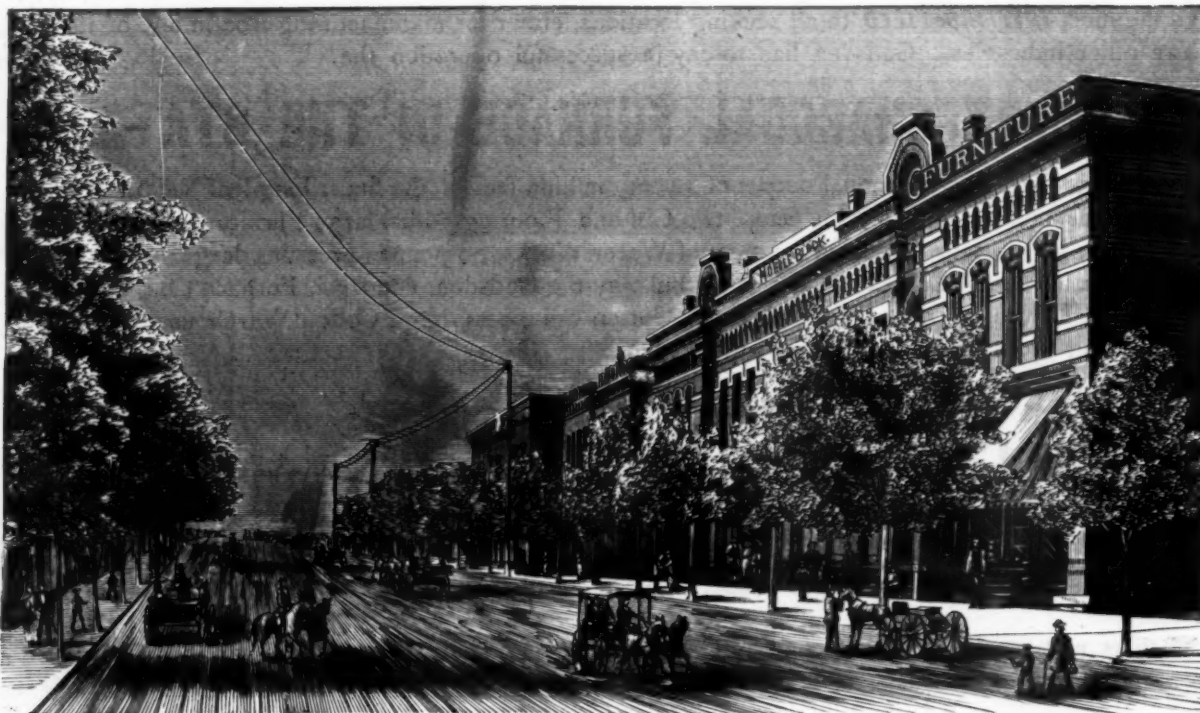
FOR FURTHER PARTICULARS, ADDRESS SECRETARY OF

The Gadsden Land and Improvement Co., ⚡ Gadsden, Ala.

ANNISTON, ALA.

"The Model City of the South."

THERE is no healthier or more charming place of residence in America than Anniston; built on the slope of one of the highest of the chain of the Blue Ridge in Alabama, it commands scenery that is unapproachable in the State. Nature could not have formed a more beautiful place for man to build a city or given greater natural advantages. The natural drainage is most thorough and complete, while in addition the city is preparing a system of underground sewerage. *A more delightful and invigorating climate cannot be found anywhere:* mild in winter, cool in summer, a thousand feet above the Gulf, with the high and broken chain, range after range in the east, Blue Mountain in the north, Coldwater Mountain in the southwest, make Anniston the *coolest, healthiest and most attractive of any city in the South.* It has the richest agricultural country surrounding and tributary to it in the State, to support a manufacturing and mercantile population. The mountain sides will grow the grape and every kind of large and small fruit to perfection, and the valleys every product of diversified farming. *It is in the heart of the richest mineral district of the South,* and commands the great fields of brown hematite ores on which the great and successful manufacture of iron must in the end depend for quality and profit in every branch of most skillful and best manufactures of iron and steel. It has tributary to it *the best and most extensive pine forests in North Alabama,* that are reached by roads owned and controlled by Anniston citizens, while it has secured to its industries the very best coal mines and coking coal in Alabama. There is no city in America, in proportion to population, that has the manufactures of Anniston, or employs as many working men, or does a larger mercantile business. The industries already in full and profitable operation in Anniston are the **two Woodstock Furnaces** producing six hundred tons of Standard Car Wheel and Malleable Iron per week, and the **two Clifton Furnaces**, tributary to Anniston, producing nearly as much more. **The Car Works** are fully employed turning out forty cars per week, and are introducing new machinery and larger engines to increase their capacity to twenty cars per day. **The Rolling Mill and Car Wheel Foundry and Steam Forge** are among the largest in the South, of a capacity of two hundred wheels, a consumption of 120,000 pounds of metal per day, exclusive of the Rolling Mill and Steam Forge. These works are being enlarged to meet the increasing demands upon them. **The Cotton Factory** is one of the largest in the South, containing 11,700 spindles, and is running to its full capacity, while the foundry of **Murray & Stevenson**, and machine shop of **Pindar & Co.**, and planing mills of **Miller & Smith and Farrar & Co.** employ a large number of men and are crowded with work. The new industries that are now under way and provided for will within the next twelve months **Add Four Thousand Additional Working Men to Anniston's Population**. Two of the **Largest Iron Furnaces in the South**, capable of producing two thousand tons of iron per week, are progressing rapidly, and one of the **Largest and most complete Pipe Foundries in the world** for the production of Gas and Water Pipe is under construction,—it will employ nine hundred men.



NORLE STREET—ANNISTON.

The **Steel Bloomery**, for the production of Steel Blooms, is nearly completed, and the **Fire-Brick Works of Taylor & Sons** are ready for operation. The **Ninety-Inch Morse Cotton Compress**, with its warehouses, will be ready to receive the coming crop. Forty thousand bales, it is estimated, will be secured to Anniston from the territory that its system of railroads have opened up. The completion of the **Anniston & Cincinnati Railroad** during the present year, that will be owned and controlled by Anniston's citizens, opens up new territory and forms a **New and Shorter Grand Trunk Line to Cincinnati and the great Northwest, and to the Southwest via New Orleans and Shreveport.**

It is only the profits of business and labor that can add to the wealth of a community, add to or maintain the value of real estate, and add to the prosperity of its people. Having this in view, every industry and business in Anniston is established on a *profitable* basis. All its merchants are doing a large and profitable business, far larger than they prepared for or anticipated; it is the same with the manufacturers, while *not a dollar of debt has been created*, either by issue of a bond or placing of a mortgage on any of its old or new industries, leaving their earnings free from fixed charges that must be paid in times of depression as well as of prosperity. *To the investor, either in business, manufacturing or real estate, nowhere else are presented opportunities as safe, secure and certain as at Anniston, or where they can rest on as healthy and solid foundation.* It has trunk line railroad communication with all parts of the United States, and freight rates with the most favored of Southern cities. Two lines of railroads are owned and controlled in the interest of Anniston by its own citizens. *It has the best system of Water Works*, with the purest well water from three hundred feet below the surface, drawn from white quartz sand and gravel, and distributed through the city, with a pressure of 100 pounds to the inch, from a reservoir always full, protecting the city against fire and giving it the lowest rate of insurance. *The city is practically free from debt, and taxation limited to one-half of one per cent.* *The means for education are the very best.* Public Schools of a high grade are provided. One of the finest and best institutes for Young Ladies has been opened, and a College for Boys and Young Men, to which a School of Technology and Chemical Assay Laboratory have been added, is now nearly completed, and the best of teachers and professors secured for both. There are *Churches for all denominations*, and *Hotel Accommodations that are not surpassed in Europe or America.* The **ANNISTON INN** provides the quiet and comfort of the most luxurious home. *The streets are wide, macadamized, and rolled hard and smooth for pleasant drives.* **STREET CARS AND DUMMY LINES** are being built to different parts of the city, and the **ELECTRIC LIGHT** service enlarged and improved, leaving nothing undone to promote the comfort of its citizens and maintain and increase the value of their property and profits of their business.

The **Anniston City Land Company**, or the **Bureau of Information**, will give any information desired when applied to, and invite all wishing a charming place in which to live, to do business or to make profitable investments, to visit

—●ANNISTON.●—

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

ALABAMA.

Ackerville.—J. W. Stewart has erected a ginny.

Anniston.—C. H. Camfield and associates and C. H. Williams and associates have each asked for permit to build a dummy street railroad.

Anniston.—There is talk of a shoe factory being moved to Anniston. If anything is done, the Anniston City Land Co. can give information.

Anniston.—The sewerage committee will receive bids for constructing a sewerage system estimated to cost \$2,460.

Bessemer.—The Bessemer Electric Light & Power Co., capital stock \$50,000, has been chartered by A. E. Burke, of New Orleans, La., and W. H. H. Judson and T. V. Hoffman, of Bessemer.

Bessemer.—70 houses will, it is said, be erected by the South Bessemer Homestead Co.

Bessemer.—The Bessemer Land Co. have donated a site for a Catholic church.

Birmingham.—The Milner Springs & Birmingham Street Railway Co. will hold a meeting October 17 to increase their capital stock \$50,000.

Birmingham.—The Avondale Stove & Foundry Co. will, it is stated, shortly double their capacity.

Birmingham.—The Walker Land Co. will, it is said, soon build their dummy railroad, previously reported.

Birmingham.—It is stated that a paint mill and a planing mill will be built on the property of the East Birmingham Land Co.

Birmingham.—The Birmingham Water Works are to have their present pumps replaced with Deane pumps of 7,000,000 gallons capacity.

Birmingham.—The capital stock of the Birmingham Electro-Libration Co., reported last week as chartered by John N. Webb and others, is \$1,000,000.

Birmingham.—James Jackson, J. B. Moore, G. T. McWhorton, John B. Steadham, W. A. Johnston, W. R. Alexander and S. Marshall have incorporated the Paducah, Chickasaw & Birmingham Railroad Co., capital stock \$500,000, to build from Chickasaw to Birmingham.

Birmingham.—The contract to erect the court-house, previously reported, has been let to Charles Pearce & Co., of Indianapolis, Ind., at \$177,900.

Birmingham.—The Caldwell Printing Works, reported last week, were not totally burned. Will put new machinery in book-binding.

Birmingham.—All bids for building the city hall have been rejected, and new bids will probably be advertised for.

Birmingham.—The Elyton Land Co. have commenced work on one manufactory and are purchasing machinery for another.

Birmingham.—An addition of 120 rooms will be built to the Lakeview Hotel.

Eufaula.—It is stated that work on the Eufaula & East Alabama Railroad, previously reported, will soon be commenced.

Eufaula.—Machinery has been purchased to start a broom factory.

Falkville.—W. J. Speakman is repairing his mill and putting in new boiler and engine.

Florence.—Work has been commenced on the water works, previously reported to be built by the Florence Water Works Co.

Florence.—One of the planing mills is to be enlarged.

Fort Payne.—The contract to build the jail, previously reported, has been let to McDonald Bros., of Louisville, Ky., at \$6,600.

Gadsden.—A sash, door and blind factory will be built by W. S. Standifer.

Gadsden.—The Queen City Electric Light Co. are adding machinery to their plant for incandescent lighting.

Gadsden.—S. W. Riddle & Co. have purchased a site, 50x150 feet, to erect a large brick building.

Gadsden.—W. M. Meeks will erect three brick buildings, and have let the contract for the brick work to J. M. Chadwick.

Jasper.—A land and improvement company will be chartered. L. B. Musgrove can give information.

Montgomery.—The city council have purchased a site to build new stables for the city.

Montgomery.—The Alabama Brewing Association, capital stock \$100,000, has been chartered to build the brewery at Riverside, previously reported. 12 acres of land have been secured and the plant will cost about \$60,000. Jacob Griel is president.

Montgomery.—The Friedman Vinegar & Cider Works have let the contract for their building, previously reported, to Davis Bros.

Montgomery.—Bids for erecting an university building will be received by Prof. Patterson.

Russellville.—F. L. Fossick & Co. have built a mill at their Darlington quarries for sawing stone.

Selma.—The Selma Land, Improvement & Furnace Co., previously reported, will soon begin improving their property and building houses.

Sheffield.—The East Sheffield Land Co. will build water works and erect 20 houses at a cost of \$50,000.

Sheffield.—The Alabama & Tennessee Construction Co. have, it is reported, contracted to erect buildings to cost \$200,000.

Sheffield.—The Sheffield Agricultural & Machine Works, previously reported, are now erecting their buildings.

Sheffield.—The Sheffield Paint Co., previously reported, are receiving bids for building their works. The main building will be two stories, 50x130 feet. Heber Jones is president of the company; R. J. Woods, treasurer, and T. M. Miller, secretary and manager.

Sheffield.—The Sheffield Sandstone Quarry Co. has been chartered by W. B. Wood, B. F. Little, C. J. Voorhees, C. F. Voorhees and B. F. Beegle.

Sheffield.—The Mobile Real Estate Co. contemplate erecting a large block of buildings.

Sheffield.—Mr. Hull, architect, is preparing plans for a building 100x120 feet, to cost probably \$40,000. It will be for hotel and other purposes.

Stevenson.—A tinware factory will probably be established. H. J. O'Shields can give information if anything is done.

Strasburg.—J. F. Maull will erect a saw and planing mill.

Talladega.—A broom factory will probably be started. The Talladega Land & Improvement Co. can give information.

Talladega.—The capital stock of the Talladega Land & Improvement Co. has been increased.

Talladega.—M. O. Arnold contemplates starting a paper mill, and wants correspondence with manufacturers of paper mill machinery.

Talladega.—A spoke and handle factory is to be started. The Talladega Land & Improvement Co. can give particulars.

Trout Creek.—The St. Clair Coal Co. will put in machinery to increase the output of their mines.

Tuskaloosa.—B. Knauff, of Birmingham, has made a proposition to build gas works.

Tuskaloosa.—The Tuskaloosa Coal, Iron & Land Co. have made a proposition to construct the water works, previously reported.

Waterloo.—It is reported that a land and improvement company has been organized.

Weavers' Station.—W. P. Cooper will rebuild his ginny reported in this issue as burned.

ARKANSAS.

Fort Smith.—The contract for grading the Fort Smith branch of the St. Louis, Iron Mountain & Southern Railroad from Fort Smith to Backbone mountain has been let.

Hot Springs.—The Eclipse Mining & Smelting Co., lately reported as chartered, have organized with James Campbell, of Charleston, S. C., as president; George W. Baxter, vice-president, and William Hant, treasurer. Will, it is said, begin developing at once.

Hot Springs.—J. L. Goodbar contemplates purchasing the Gillen's White Sulphur Springs and building a tram road to the springs.

Hot Springs.—A new town is being started 6½ miles from Hot Springs to be called Waverly Springs.

Hope.—B. Beard, W. G. Wood and others are reported as forming a company to build the cotton factory previously reported as talked of.

Jefferson.—A saw mill is being erected by Chisolm & Phillips.

Little Rock.—D. H. Thomas will, it is reported, build a new cotton press factory.

Morrilton.—Bids for building a church for the Methodists will be received until October 10 by H. W. Burrow.

Pine Bluff.—C. J. Faucette has received the contract to erect a two-story brick building 48x120 feet.

Silver City.—The Silver City Mining Co. has been organized with W. J. Dunklin as president. Are now developing mines.

Texarkana.—The machine shops of the Texarkana Northern Railroad, reported last week, are to be built at Texarkana.

FLORIDA.

Apopka.—The directors of the Clay Springs, Apopka & Gulf Railroad Co., reported last week, are R. C. Waters, Page McKinney, A. D. Mark, J. G. Bradshaw, J. R. Sharp and others.

Jacksonville.—The Jacksonville Street Railway Co. have let contracts for the extension of their road.

Jacksonville.—R. N. Ellis will receive bids until December 5 for building an addition to county jail 44x58 feet, to contain 42

cells. Separate bids will be required for the iron work.

Kissimmee.—W. S. Douglas and M. J. Towne have bought a saw mill, and will move it to Floradelpia.

Mascotte.—A large saw mill is being built by A. R. Gano.

Ocala.—Mann Bros. and John Codero have not purchased electric light machinery as stated last week. A. E. Waterman only will erect a plant.

Orlando.—Machinery has been purchased for the electric light plant previously reported.

Pensacola.—The Pensacola Electric Light & Power Co., previously reported, have purchased machinery for their plant.

Plant City.—It is rumored that a cigar factory and a canning factory are to be established. If true, Merrin & Sons can probably give information.

Sanford.—William T. Cotter will enlarge planing mill, and wants to purchase boiler and engine.

St. Augustine.—The St. Augustine Ice Manufacturing Co. have ordered machinery to greatly increase the capacity of their factory.

Tampa.—Jeter & Boardman, of Brunswick, Ga., have contracted to build water works.

GEORGIA.

Americus.—W. F. Ellis, of Montgomery, Ala., will build gas works.

Americus.—The Baptists will build a \$10,000 church.

Americus.—Montgomery parties have asked for permit to build a street railroad.

Atlanta.—The bill introduced in the legislature to charter the North & South Short Line Railroad Co. to extend from Augusta to the Florida State line, has become a law. The capital stock is \$1,000,000. C. L. Harrell is interested.

Atlanta.—The Central Railroad and the East Tennessee, Virginia & Georgia Railroad will jointly build an iron bridge at the Nelson street crossing.

Atlanta.—Bills have been introduced in the legislature to incorporate the Gainesville & Columbia Railroad Co. and the Columbus & Buena Vista Railroad Co.

Columbus.—The Brush Electric Light Co. have been awarded the contract to light the city.

Conyers.—A land and improvement company will be organized.

Conyers.—It is reported that Colonel Pierce, of Columbia, S. C., is preparing to open quarries near Conyers.

Griffin.—The Griffin Manufacturing Co. will erect an addition to their cotton mill to be used as a check room.

Hazlehurst.—T. J. Youmans & Co. are building two saw mills and have commenced work on a railroad. Will also erect several brick buildings.

McDonald.—Brice & Adams have erected new gin. They will probably add a saw mill.

Savannah.—The Savannah & Tybee Railroad Co. have asked for permit to build their road on certain streets.

Savannah.—The county commissioners have purchased a site for an almshouse.

Savannah.—Proposals for building the Thomasville, Tallahassee & Monticello Railroad from Thomasville, Ga., to the Florida State line, will be received until September 30 by H. S. Haines, chief engineer Plant Investment Co.

Thomasville.—The Pittsburgh Ramie Manufacturing Co., of Pittsburgh, Pa., are starting a ramie nursery. They will decorticate and bleach the ramie at Thomasville.

KENTUCKY.

Covington.—James Lannon, R. M. Burton and C. W. Cole have incorporated the Union Wire Co. to buy, sell and manufacture wire rods. The capital stock is \$200,000.

Covington.—The Covington Hide & Leather Co., reported last week as chartered, have bought the tannery of J. C. Steinharter.

Covington.—The J. C. Kerr Transportation Co., capital stock \$20,000, has been chartered by Charles G. Boyd, S. A. Bryan and S. G. Hubbard.

Georgetown.—Water works are projected and will probably be built soon.

Greenup.—A stock company will, it is said, probably be formed to purchase and operate the Greenup Stove Foundry.

Louisville.—Charles A. Deppen has erected marble and granite works corner of 7th and Zane streets.

Marion.—Weldon & Clement have started the broom factory reported last week.

Marion.—The roller flour mill reported last week is being erected by Kevil & Lamb.

Mt. Sterling.—H. E. Huntington, of Covington, has purchased the Kentucky & South Atlantic Railroad and will probably extend it.

Morgan.—Hand & Son have put roller machinery in their flour mill.

Newport.—McRae & Lally are receiving proposals for building a tunnel 450 feet long and for 800 yards of masonry.

Olive Hill.—A steam saw and grist mill will be erected by L. T. Taken & Sons.

Paducah.—The iron furnace lately reported as to be erected at once on the lands of the Paducah Land, Coal & Iron Co. will be built by that company. They have selected sites, &c.

Winchester.—The name of the company lately reported as being formed to bore for gas is the Winchester Natural Gas Co. The capital stock is \$10,000. John E. Garner is president and H. P. Thompson, vice-president.

LOUISIANA.

Alexandria.—B. W. Johnson, president Little Rock & Alexandria Railroad Co., previously reported, states that all arrangements have been made for the building of their railroad.

Delta.—The Fifth Louisiana District Levee Board have let contracts for 10,000 yards of leveeing to George Arnold & Co., of Memphis, Tenn.; 119,000 yards to T. Bynne; 241,000 yards to A. J. Scott; 155,350 yards to A. P. Martin, and 58,505 yards to A. G. O'Ber.

Lake Charles.—It is reported that George W. Taylor, of New Orleans, will build a foundry and machine shop.

Lake Charles.—A large building will be erected for Lake Charles College.

New Orleans.—The committee on levees, water and drainage will receive proposals for building a brick culvert to cost probably more than \$60,000.

New Orleans.—William T. Ivy, president Board of Commissioners, has let the contract for building the Fulton Lake levee in Arkansas to Robert McNamara at about \$66,000.

New Orleans.—The Gulf & Ship Island Railroad Co. have made surveys to build a pier.

Shreveport.—A syndicate has, it is said, been formed with a view to building a large hotel.

MARYLAND.

Baltimore.—The Chesapeake Manufacturing Co. have moved their steel wire nail factory to corner North and Pleasant streets and have greatly increased their capacity.

Baltimore.—The Baxter Electric Manufacturing & Motor Co. will hold a meeting October 8 to consider increasing their capital stock from \$200,000 to \$500,000. They are now enlarging their works.

Baltimore.—The contract for the iron work of the palm-house to be erected in Druid Hill Park has been let to H. A. Ramsay & Son at \$8,987.

Baltimore.—A. L. Gorter & Co. will build five houses on Calvert street near Biddle to cost \$8,000 each, and nine houses on Biddle street near Charles to cost \$7,500 each.

Baltimore.—J. S. Young & Co. have rebuilt the Baltimore Bark Extract Works, previously reported as burned.

Baltimore.—T. Newton Kurtz will erect a four-story brick warehouse on Pratt street near Charles. Louis E. Brown will erect ten three-story brick houses on Edmondson avenue and two on Monroe street.

Baltimore.—The Church Home & Infirmary, on Broadway, will be improved and enlarged at a cost of about \$40,000. A brick addition, five stories, 66x90 feet, will be built. E. F. Baldwin and Josiah Pennington have prepared plans.

Baltimore.—The First Presbyterian Church will erect a two-story brick school on Park avenue near Madison street. A three-story brick building will be built on John street near Townsend for the Women's Hospital.

Baltimore.—William Depkin will erect a four-story brick building on Light street. George Bauernschmidt will erect six three-story brick houses on Belair avenue.

Baltimore.—It is rumored that the Norton Shipbuilding Co. will remove their shipyards from Washington, D. C., to Baltimore.

Baltimore.—The Richard Sauer Manufacturing Co. will put in their show case factory on German street an 18-horse-power steam boiler.

Baltimore.—The Eagle Oil Works, at Highlandtown, reported in this issue as partially destroyed, will be rebuilt.

Baltimore.—Hutzler Bros. will erect during the winter a five-story building on Howard street, 70x120 feet. It will cost about \$100,000.

Baltimore.—The Third German Evangelical Church will build a church corner of Cross and Nanticoke streets.

Baltimore.—The Baltimore Transportation Co. will build a one-story warehouse foot of Buchanan's wharf.

Baltimore.—Matthai, Ingram & Co. will build a five-story addition to their tinware factory on Ohio avenue.

Cumberland.—A system of water works will be built at the new insane asylum. Clerk county commissioners can give information.

Federalburg.—The kindling wood factory of Davis & Moore, previously reported as burned, has been rebuilt.

Phoenix.—The Mount Vernon Co., of Baltimore, have purchased the Phoenix Cotton Mills. They will make improvements to operate it as an adjunct of their Mount Vernon Mills.

Stafford.—A wagon factory is projected.

Washington, D. C.—Frank N. Carver has received the contract to erect a large office building on F street to cost \$110,000.

Washington.—A. Curry will erect a brick refrigerating house to cost \$6,700, and Nixon Brewer will build a \$5,000 brick warehouse on 7th street.

Washington, D. C.—It is reported that M. G. Lane will spend \$175,000 in erecting a "flat" building corner of New Jersey avenue and B street, N. W.

Washington, D. C.—Levi P. Morton will erect a large building corner of 15th and H streets to cost about \$200,000. Bids for its erection are, it is said, being received.

Washington, D. C.—It is reported that R. Portner, of Alexandria, Va., contemplates building next year a brewery to cost \$300,000.

Washington, D. C.—The engineer commissioner will ask for \$1,000,000 for street improvements.

Washington, D. C.—George Truesdell will build five dwellings at a cost of \$26,000.

MISSISSIPPI.

Columbus.—J. R. Ryan, lately reported as to build a mill, expects to erect a nail factory.

Greenville.—G. Howard & Son have received the contract for about 90,000 yards of leveeing near Greenville. W. E. Ringo & Co. have received the contract for about 100,000 yards at Mound Landing.

Longwood.—George Arnold & Co., of Memphis, Tenn., have received the contract for 500,000 yards of leveeing.

Meridian.—The Meridian Carriage Works will, it is reported, be enlarged.

Meridian.—A company is being formed to bore for gas. R. A. Turell can probably give information.

Meridian.—It is reported that C. C. Coffee has moved his pump factory from Memphis, Tenn., to Meridian.

Natchez.—The Kansas, Missouri, Arkansas & Natchez Railroad Co., capital stock \$10,000,000, has been chartered at Baxter Springs, Kan., to build a road from Cherryville, Kan., to Natchez.

Stonewall.—The Stonewall Manufacturing Co., lately mentioned as putting new machinery in their cotton factory, will shortly add 8 or 10 new ring spinning frames.

Vicksburg.—The city council and the Board of Supervisors have each appropriated \$1,000 for an artesian well.

Water Valley.—The Yacona Mills, lately reported as to add 100 looms, contemplate putting in 150 looms, but have not fully decided yet.

NORTH CAROLINA.

Cedar Falls.—The Cedar Falls Manufacturing Co., previously reported as contemplating doubling the capacity of their cotton mill, have purchased the necessary machinery.

Concord.—The Odell Manufacturing Co. will put in their cotton mill the electric light machinery reported last week. The Cannon Manufacturing Co., lately reported as to build a cotton mill, will also put in electric lights.

Dalton.—H. W. Reid, lately reported as contemplating erecting a spoke and handle factory, is building it at Dalton.

Durham.—The subscription of \$50,000, previously reported, has been voted to the Oxford & Clarksville Railroad.

Fayetteville.—Mark Morgan, of Laurel Hill, has bought the Clarendon Mills property on Blount creek. He contemplates building a cotton factory.

Greensboro.—H. W. Cobb will erect a four-story leaf tobacco factory 40x100 feet.

Hamilton.—Frank Hitch is erecting a 30 horse-power saw and shingle mill for Whedbee & Dickinson, of Baltimore, Md.

Hamilton.—Frank Hitch, previously reported as erecting a large lumber mill, is putting in a re-saw and will erect three more dry kilns. He and others (Hamilton Railroad & Lumber Co.) are building 15 miles of railroad.

Henderson.—A tobacco warehouse is being erected for Elam & Jenkins.

Henderson.—A subscription of \$40,000 has been voted to the Lynchburg & Durham Railroad.

Hendersonville.—A hotel will be built by G. M. Roberts.

Hendersonville.—The Green River Zircon Mining Co. will erect machinery to enlarge operations at their zircon mines if they can find suitable machinery.

Indian Trail.—F. L. Stowell is developing the Plack mine.

Lincolnton.—Efforts are still being made to form a company to build a cotton factory.

Marion.—The Marion Improvement Co., previously reported, will develop a mica mine.

Morehead City.—Parties desiring to furnish machinery, &c., for the steam laundry and electric light plant lately reported to be erected by the purchasers of the Atlantic Hotel, will address G. W. Blacknall at Raleigh.

New Berne.—A saw mill has been erected by James Boyle.

Rutherfordton.—John D. Burgin and others are developing gold land near Rutherfordton.

Salisbury.—The proprietors of the Heathcock and Hearn mines are preparing to fully develop their mines.

Salisbury.—Payne & Lunn, of Winston, will erect a large tobacco factory.

Salisbury.—There is talk of two tobacco factories being erected soon.

Shelby.—Miller, Blanton & Oates have erected a ginnyery.

Southport.—The Southport Terminal Co. has, it is stated, been organized, and has contracted for the wharves, &c.

Thomasville.—It is rumored that the Piedmont Reduction Co. will lay steel rails on their pole road.

Wilmington.—The Wilmington Ice & Cold Storage Co. will put in new ice machinery.

Wilmington.—William Larkins has lately purchased a rice mill and will put in new and improved machinery.

SOUTH CAROLINA.

Barnwell.—W. H. Hagood will rebuild saw mill reported in this issue as burned.

Camden.—A cotton factory is being talked of.

Charleston.—The name of the company reported last week as chartered to start a furniture factory, by F. W. Wagener and others, is the Phoenix Furniture Co. Will not engage in manufacturing at present.

Charleston.—The Wager Works Co. have ordered plans and specifications prepared for a 10,000,000 gallons reservoir.

Cheraw.—The name of the company reported last week as formed to operate iron works is the Cheraw Iron Works. The capital stock is \$20,000. The incorporators are Henry D. Mallory, A. G. Kollock, Henry P. Duncan and others.

Columbia.—The Columbia, Newberry & Laurens Railroad Co. have awarded the contract for building the piers for the bridge across the Broad river, previously reported, to C. D. Langhorn, of Richmond, Va. They will cost probably \$20,000.

Columbia.—The Brush Electric Light Co. will erect the plant lately reported.

Greenwood.—Capitalists have offered to furnish money to build the cotton factory previously reported, if \$25,000 is raised in Greenwood. W. H. Pearce can give information.

Pelzer.—The Pelzer Manufacturing Co. have let the contract for their new factory and new warehouse to W. D. Goodwin, of Greenville. The capital stock of the company will, it is stated, be increased from \$500,000 to \$600,000.

TENNESSEE.

Athens.—The Transylvania Railroad Co., of North Carolina; the Atlantic, Greenville & Western Railroad Co., of South Carolina, and the Carolina, Knoxville & Western Railroad Co., of Tennessee, have consolidated as the Carolina, Knoxville & Western Railroad Co., with L. W. Mauldin as president.

Bristol.—The Bristol Coffin Co. has been organized. Will start a factory.

Bristol.—Brown Bros. are preparing to double the capacity of their carriage factory.

Bristol.—The stock company previously reported as being formed by S. M. Elliott, to build a 75-barrel flour mill are contracting for machinery, &c.

Chattanooga.—H. Y. Hall will erect three-story brick building on Cherry street.

Chattanooga.—It is rumored that a company is being formed to build a narrow gauge railroad to Cameron Hill and establish a pleasure resort.

Chattanooga.—The Chattanooga Medicine Co. have awarded the contract for a new factory (frame) to D. J. Chandler. It will be two stories, 40x125 feet.

Chattanooga.—O. A. Dietz, 118 East Eighth street, will receive proposals for sinking a shaft near Murphy, N. C. It is to be 7 feet square and 50 feet or more deep.

Columbia.—The Nashville, Florida & Sheffield Railroad Co. have mortgaged their road for \$2,500,000 to complete the road and branches and for other purposes.

Cumberland Gap.—A company has been chartered to build a railroad from Jellico to Cumberland Gap. It will be an extension of the Louisville & Nashville Railroad.

Dayton.—J. Hawkins, of Tullahoma, is negotiating for the erection of an electric light plant.

Dayton.—A company has been chartered to build a street railroad.

Dickson.—The Nashville, Chattanooga & St. Louis Railroad Co. (office, Nashville,) have made surveys for the extension of their Centerville branch about 18 miles southwardly.

Kingston.—James Welcher is prospecting for iron ore.

Knoxville.—S. D. G. Miles will probably form a company to manufacture egg cases, &c.

Knoxville.—The East Tennessee, Virginia & Georgia Railroad Co. will extend the Waldens' Ridge Railroad from Oliver Springs to Knoxville, and have let the contract for the grading to McDonald, Shea & Co.

Knoxville.—A. A. Arthur and others have chartered the Careyville, Jacksboro & Big Creek Railroad to extend from Careyville to Big Creek Gap.

Knoxville.—The Great Southern Marble Co., previously reported as to build a large marble mill, have leased the mill of Beach & Pitman. They will soon increase its capacity.

Knoxville.—The Knoxville Belt Railroad Co. has been chartered by George R. Eager, Alexander A. Arthur, Clarence Cary, Walter Goodman and William Talbot.

Maryville.—The Chilhowee Oil Co. has lately been organized.

Memphis.—Williams & Farnsworth have lately started a wheelbarrow factory.

Milan.—A subscription has been voted to the Tennessee Central & Alabama Railroad.

Milan.—The Nashville, Chattanooga & St. Louis Railroad Co. (office, Nashville,) will, it is reported, build a branch road from Huntington to Milan.

Morristown.—Samuel Gullenbarger will start a sash and blind factory and has contracted for the building.

Morristown.—The Morristown Mill Co. will probably put electric light machinery in their flour mill.

Morristown.—George L. Golgate will, it is said, soon make a proposition to erect an electric light plant.

Nashville.—The Nashville Ice Co. have put in electric light machinery.

Nashville.—The Butt Mountain Coal Co. has been chartered by J. M. Thornbaugh, D. K. Young, John C. Houk, E. C. Edwards and R. M. Edwards.

Sevierville.—Sevier county has voted a subscription of \$75,000 to the Carolina, Knoxville & Western Railroad.

TEXAS.

Bartlett.—A system of water works have been constructed by J. E. Pritsch.

Beaumont.—The Texas Tram & Lumber Co. will repair and improve their mill.

Brenham.—The Brenham Street Railroad Co. will build new car-sheds and stables.

Bryan.—A city hall is to be erected. The mayor can give information.

Cisco.—The Texas Central Railway Co., (office, Ross,) are developing a stone quarry near Cisco.

Cisco.—Bacon & Clegg and William Porter have each erected a ginnyery.

Cleburne.—A stock company is being formed to increase the water supply of the town.

Dallas.—The contract for the iron stairs of the new government building has been let to E. Bowles & Co., of Detroit, Mich., at \$2,512.

Dallas.—The Farmers' Alliance have selected a site for their cotton mill, previously reported.

Dallas.—Mr. Kivlen has purchased a barrel factory at Fort Worth and will move it to Dallas.

Del Rio.—The contract for building the courthouse, previously reported, has been let to Hood & McLeod. It is to cost \$32,500.

Fort Worth.—The city council will issue \$15,000 of bonds for sewer purposes.

Georgetown.—The commissioners' court contemplate erecting a \$20,000 jail.

Georgetown.—A fine hotel is reported to be built. If correct, I. E. Cooper can give particulars.

Greenville.—The commissioners' court will build an iron bridge near Greenville.

Hillsboro.—J. C. Morrow & Co. have contracted to drill an artesian well.

Hillsboro.—Hawkins & Co. will probably erect a two-story brick and stone building, 50x125 feet, to cost \$18,000.

Houston.—A company has been chartered to secure water from artesian wells.

Laredo.—The Laredo Bridge & Tramway Co. have asked for permit to build the bridge across the Rio Grande river and the street railroad lately mentioned.

Longview.—A company has been formed to start a canning factory. A broom and a furniture factory are projected. E. S. Forry can probably give information.

Lufkin.—T. R. Bonner & Co. will increase the capacity of their saw mill from 50 to 100 M feet daily. They will add planing machinery about December 1.

McKinney.—The Collin County Milling Association has been chartered to build the mill reported last week as to be built by the Farmers' Alliance.

Nacogdoches.—The name of the \$100,000 company reported last week as formed to develop oil and mineral lands in Nacogdoches county by J. B. Gonzalez, of New Orleans, La., is the Louisiana Oil & Mineral Co.

Nacogdoches.—A town has been laid off in Nacogdoches county to be called Oil Springs. A planing mill and shingle mill are reported as being erected.

New Braunfels.—The Farmers' Co-operative Manufacturing Alliance will operate the New Braunfels Woolen Mill.

San Antonio.—The city council and the county commissioners have decided to build a city hall and courthouse to cost about \$200,000.

San Antonio.—Judson Bros. have the contract to sink a well for George W. Brackenridge.

Sherman.—The Grayson County Alliance, capital stock \$30,000, has been chartered and will probably engage in manufacturing.

Sherman.—It is probable that work will soon be commenced on the East Sherman Street Railroad. N. M. Lee can give information.

Sherman.—The Sherman Improvement Bureau have appointed a committee to consider the advisability of securing a supply of water from artesian wells.

Temple.—The Gulf, Colorado & Santa Fe Railroad Co. (office, Galveston,) are building a system of water works.

Temple.—The Gulf, Colorado & Santa Fe Railroad Co. (office, Galveston,) will probably soon begin work on a hospital to cost \$25,000.

Temple.—E. B. Greathouse is making efforts to secure a supply of water for the city.

Terrell.—The Howard Oil Co. have asked for permit to build an iron covered warehouse.

Texas.—The Gainesville Water Co., reported last week as increasing capital stock, are making extensive improvements to their works.

Tyler.—The Tyler Lumber Co., whose planing mill was lately reported as burned, will build a new mill to cost not less than \$40,000.

Tyler.—Charles Cobb and associates have made a proposition to establish car-wheel works with a daily capacity of 50 wheels.

Waco.—The Farmer's National Bank will erect a brick bank building 26x90 feet to cost \$12,000. Will receive bids.

Waco.—A two-story brick building 43x81 feet, to cost \$16,000, will probably be built by James B. Baker.

Woodville.—The commissioners' court have issued bonds to build a \$10,000 jail.

VIRGINIA.

Alexander.—The Steel Tubular Car Co. has been organized to manufacture cars, railroad supplies &c., with J. S. Orr, of Philadelphia, Pa., as president; Edgar M. Marble, Washington, D. C., vice-president, and John W. Post, New York, secretary and treasurer. The capital stock is to be not less than \$5,000,000 nor more than \$10,000,000. The company are now looking for a suitable site to erect works.

Big Stone Gap.—Several large veins of coking coal are being opened up at Big Stone Gap from 8 to 14 feet in thickness. E. B. Moon of Bristol, Tenn., can probably give information.

Fredericksburg.—The National Mining Co., of Virginia, previously reported as chartered at Jacksonville, Fla., will erect saw mills on their lands 10 miles from Fredericksburg.

Low Moor.—The Low Moor Iron Co., previously reported as repairing their furnace will shortly put in several large new engines, &c.

Lynchburg.—William A. Heffernan is organizing a stock company to manufacture stained glass. The capital will be \$25,000.

Manchester.—The Manchester Paper Mill is being repaired.

Norfolk.—Linchan & Co., of Raleigh, N. C., have contracted to furnish the city with 2,700 tons of Belgian blocks at \$3.60 per ton.

Norfolk.—An oyster packing house is being erected on the property of Louis Hilliard.

Portsmouth.—Hoagland & Howe have started a boiler shop.

Pulaski City.—J. H. Bramwell is preparing to develop iron ore mines.

Roanoke.—The Shenandoah Valley Railroad Co. will improve their roadbed and replace several wooden trestles with iron bridges.

Roanoke.—The Old Dominion Packing Co. has been formed to start a can and canning factory by P. L. Terry, J. C. Moomaw, M. C. Thomas, E. Nininger and others. The capital stock is to be not less than \$25,000 nor more than \$50,000.

Tazewell C. H.—W. W. Coolbaugh will probably start an ice factory. Wants machinery for a small plant.

West Point.—The West Point & Richmond Land, Navigation & Improvement Co. are now erecting the cotton compress previously reported as contemplated.

WEST VIRGINIA.

Braxton C. H.—It is reported that S. H. Pierson & Co., of Parkersburg, will build 50 houses this fall.

Clarksburg.—The city has decided to issue \$50,000 of bonds to build water works, previously reported.

Huntington.—The Ensign Manufacturing Co. are enlarging their car works by an additional erecting shop, 100x208 feet.

Riverside.—The Newport News & Mississippi Valley Railroad Co. (office, Richmond, Va.) will open coal mines on their property.

Wellsburg.—The Wheeling, Wellsburg & State Line Railroad Co. will organize October 6.

Wheeling.—The West Virginia China Co., previously mentioned, have organized with Thomas O'Brien as president; W. L. Hearne, vice-president, and E. C. Ross, secretary. They will erect two three-story buildings and a kiln building at once.

Wheeling.—C. Steinmetz will erect a new three-story brick box factory.

Wheeling.—The Ohio county commissioners and the city council have each appointed a committee to consider the feasibility of building a railroad bridge across the Ohio river and a belt railroad to cost about \$1,000,000.

Pittsburgh, Pa.—It is rumored, but not confirmed, that the Westinghouse Machine Co. will establish branch works at some point in the South.

BURNED.

Baltimore, Md.—The Palace Steam Laundry at 306 Courtland street.

Baltimore, Md.—The Eagle Oil Works at Highlandtown, damaged \$1,200 by fire. Will be rebuilt.

Barnwell, S. C.—The saw mill of W. H. Hagood. Will rebuild.

Bellefonte, Ala.—The saw mill of J. S. Martin; loss \$1,000.

Dinwiddie C. H., Va.—The grist mill of W. D. Young; loss \$2,000.

Dunham, Ala.—The mill of the Dunham Lumber Co., damaged \$800 by an explosion.

Eufaula, Ala.—The ice factory and grist mill of P. H. Morris and James Brown; loss about \$7,000. The grist mill will probably be rebuilt.

Greensboro, Ala.—The grist mill and gin of W. H. Lavender, 5 miles from Greensboro; loss \$3,000.

Grove Hill, Ala.—The mill and gin of D. J. Bedsole; loss \$1,200.

Jackson, Ga.—The planing mill of Gilmore & Plunkett; loss \$5,500.

New Berne, N. C.—The turpentine distillery of A. Harvey.

Ozan, Ark.—The steam saw and grist mill of Smith & Lovelers near Ozan; loss \$2,500.

Sumter, S. C.—The brick works of J. Rytenberg & Sons. Will probably be rebuilt next spring.

The gins of John Alexander, Oswichee, Ala.; W. Denham, Eatonton, Ga.; D. K. Butler, in Mitchell county, Ga.; Albert Tyler, 15 miles from Natchez, Miss.; John Alexander, Marianna, Fla.; J. B. Willis, Walden, Ga.; W. P. Cooper, Weaver's Station, Ala., (will be rebuilt); C. F. Jones, Chatfield, Texas; I. J. Sanders, Montezuma, Ga.; J. M. White, 3 miles from Temple, Texas; Farmers' Alliance Gin, near Farmington, Texas; J. S. Simmons, Yellow Prairie, Texas, and the ginnyery on the Garrett Plantation, near Albany, Ga.

Barrel Factory to be Started.

NACOGDOCHES, TEXAS, Sept. 13, 1887.

Editor Manufacturers' Record:

The barrel factory to be started at Oil Springs, in this county, will be owned by the Petroleum Prospecting Co., J. E. Pierce, manager. BURKE & CARRAWAY.

MACHINERY WANTED.

[If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, &c.]

Hardware.—Z. T. Soencer, Sheffield, Ala., wants the address of manufacturers of undertakers' hardware.

Machinery for grinding oyster shells into fertilizers is wanted by the Barataria Canning Co., Biloxi, Miss.

Boiler and Engine.—William T. Cotter, Sanford, Fla., wants to buy a 40 or 60 horse-power engine and a two flue boiler to match.

Water Works.—The mayor of Troy, Ala., will negotiate with parties wanting to build water works.

Match machinery is wanted by R. H. Edmunds, Jr., Columbia, S. C.

Ice Machinery.—W. W. Coolbaugh, Tazewell C. H., Va., wants the address of manufacturers of small ice plants.

Ice Machinery.—The Corsicana Ice & Refrigerating Co., Corsicana, Texas, want plans and specifications of a 15 or 20-ton ice and refrigerating machine.

Drill.—B. Crews, Oxford, N. C., wants to buy a drill for drilling through sandstone overlaying outcrop of coal. Light portable machine is preferred.

Paper Machinery.—M. O. Arnold, Talladega, Ala., wants to correspond with manufacturers of paper mill machinery.

Iron Bridge.—William S. Kelly, San Angelo, Texas, will receive until October 31 proposals for building an iron railway bridge, including necessary piers and approaches, across the Main Concho river, near San Angelo.

Traveling Cranes.—The Navy Department at Washington, D. C., have extended the time for receiving proposals for constructing three overhead traveling cranes until November 1.

Cotton-seed oil mill machinery and a bone mill are wanted by Rawls & Perry, Cuthbert, Ga.

Water Works.—The city of Clarksburg, W. Va., will, during October or November, advertise for bids for building water works. The mayor can give particulars.

Coal Lands to be Developed.

GREENWOOD, ARK., Sept. 12, 1887.
Editor Manufacturers' Record:

We have purchased several thousand acres of land in this section, and have prospected it thoroughly with drills and openings, and find it contains an excellent body of semi-anthracite coal, 4 to 6½ feet thick, carrying by different analyses 74 to 84 per cent. of fixed carbon, making it a superior domestic and steam fuel. We intend opening out soon for a large mine; in a few years expect to have several mines in operation. Location, 11 miles southeast of Fort Smith.

WESTERN COAL & MINING CO.

Erecting a Flour Mill.

MARION, KY., Sept. 17, 1887.
Editor Manufacturers' Record:

Weldon & Clement have started the broom factory. Kevill & Lamb are erecting a flour mill. W. C. WALKER.

DEL RIO, TEXAS, Sept. 15, 1887.
Editor Manufacturers' Record:

The contract for the erection of the courthouse for Val Verde county was awarded on 12th inst. to Messrs. Hood & McLeod for \$32,500. There is a fortune waiting some live, energetic capitalist who will come to this place and establish a canning factory. Grapes and other fruits, and all kinds of vegetables are grown here, by irrigation, in abundance. W. K. JONES.

Will Build 20-Ton Ice Factory.

MONROE, LA., Sept. 11, 1887.
Editor Manufacturers' Record:

We have formed a company known as the Consolidated Ice Co., its purposes being to erect a new ice machine in Shreveport, with producing capacity of 20 tons daily; also additional refrigerator attachment.

MONROE ICE CO.

Electric Light Machinery.

CONCORD, N. C., Sept. 12, 1887.
Editor Manufacturers' Record:

The Cannon Manufacturing Co. will build a 4,000-spindle cotton mill, and will introduce the electric light in their mill. The Odell Manufacturing Co. will put the electric light in their mill. The Brush Incandescent will be used. J. M. ODELL.

Will Develop Cement Quarry.

ERIN, TENN., Sept. 12, 1887.
Editor Manufacturers' Record:

We have purchased cement quarry near this place, and will open the same soon. The style of firm will be Cooley, Thomas & Co. The capital invested will be about \$10,000. COOLEY, THOMAS & CO.

Contemplate Adding Machinery.

WATER VALLEY, MISS., Sept. 13, 1887.
Editor Manufacturers' Record:

Our stockholders are speaking of putting in 150 looms, but have come to no definite conclusion as yet. YACONA MILLS, C. E. ROMBERGER, Supt.

To Build a Furnace.

PADUCAH, KY., Sept. 15, 1887.
Editor Manufacturers' Record:

The Paducah Land, Coal & Iron Co are perfecting arrangements to build a blast furnace at this place. Sites, etc., have been selected. The president, Maj. Thomas H. Hays, of Louisville, Ky., starts to-morrow, 16th inst., for the East, to further arrange matters, and, it is contemplated, that the furnace will be pushed right along. W. W. POWELL, Sec'y.

Will Double Ice Factory.

DENISON, TEXAS, September 17, 1887.
Editor Manufacturers' Record:

We have decided to double our present capacity by adding another 15-ton ice machine, with storage rooms to correspond. DENISON CRYSTAL ICE CO.

Will Enlarge Carriage Factory.

BRISTOL, TENN., September 19, 1887.
Editor Manufacturers' Record:

We expect to commence at once to enlarge our carriage factory. The addition will be 50x22, two stories. Trade is good with us and on the increase. BROWN BROS.

Additional Machinery.

OAKLAND, FLA., Sept. 18, 1887.
Editor Manufacturers' Record:

We put in iron-working machinery, lathes, drills, planers, &c.

ORANGE BELT INVESTMENT CO.

LAREDO, TEXAS, Sept. 10, 1887.
Editor Manufacturers' Record:

The Laredo Bridge & Tramway Co. have applied to the city council for permission to construct a bridge over the Rio Grande, and also a street railway in the city. The ferry franchise at present yields to the city a revenue of \$5,150 yearly, and the city will require from the bridge company at least \$5,000 annually for first five years. The franchise belongs to the city by express grant from the Spanish crown. E. A. ATLEE.

Erecting Spoke Factory.

DALTON, N. C., Sept. 14, 1887.
Editor Manufacturers' Record:

I am erecting a factory for spokes, shafts and picker sticks; also shall saw cart shafts and short felloes. The machinery is nearly all in the building and I expect to commence work in a few days. H. W. REED.

To Manufacture Stained Glass.

LYNCHBURG, VA., Sept. 16, 1887.
Editor Manufacturers' Record:

I am forming a company for the manufacture of stained glass in this city, with capital stock of \$25,000. Parties skilled in the manufacture of this product would possibly find matters of interest by correspondence with me. WM. A. HEFFERNAN.

New Machinery.

ENTERPRISE, MISS., Sept. 14, 1887.
Editor Manufacturers' Record:

We recently put in one section of new cards, three new railways, two drawing frames, new 200-ton cloth press, and will, in the near future, put in eight to ten new ring spinning frames. We have 6,000 spindles and 180 looms on brown cotton goods. STONEWALL MFG. CO.

BALTIMORE, MD., Sept. 15, 1887.
Editor Manufacturers' Record:

We propose building five houses on Calvert street above Biddle street at a cost of \$8,000 each, and nine houses on Biddle street, between Maryland avenue and Charles street, at \$7,500 each. We will not build on lot purchased from the B. & O. this year. A. L. GORTER & CO.

COVINGTON, KY., Sept. 14, 1887.
Editor Manufacturers' Record:

The corporation known as the Covington Hide & Leather Co. has purchased the tannery of Mr. I. C. Steinharter, and will conduct the business of buying and selling pelts, manufacturing leather and wool pulling. COVINGTON HIDE & LEATHER CO.

ANDERSON C. H., S. C., Sept. 12, 1887.
Editor Manufacturers' Record:

I have leased several corundum properties in this vicinity, and shall try to learn their practical value before the year is gone. Shall commence the prospective work at once. No mining has ever been done, of any kind, in this neighborhood. WM. E. HIDDEN.

Contemplates Erecting Nail Factory.

PATTON, ALA., Sept. 15, 1887.
Editor Manufacturers' Record:

I expect to put up a nail factory at Columbus, Miss., but have not definitely settled on it. J. R. RYAN.

Will Erect Sash and Blind Factory.

MORRISTOWN, TENN., Sept. 17, 1887.
Editor Manufacturers' Record:

Mr. Samuel Sullenbarger will start a sash and blind factory here, in the near future. The building has been let to contract, and will be erected at once. W. A. JONES.

BIRMINGHAM, ALA., Sept. 16, 1887.
Editor Manufacturers' Record:

The Kansas City, Memphis & Birmingham Railroad Co. are building at Birmingham a large freight depot and a warehouse to cost respectively about \$10,000 and \$3,000. They are also building extensive and well equipped yards. Track laying is about finished and the road will be opened for business about October 1st. KANSAS CITY, MEMPHIS & BIR. R. R. CO.

To Build Large Cotton Mill.

DALLAS, TEXAS, Sept. 14, 1887.
Editor Manufacturers' Record:

We are now ready to build our mill, and will commence work as soon as plans are ready. The first mill will cost \$200,000, and contain about 10,000 spindles and 200 to 300 looms. S. D. BLAKE, Prest.

Enlarged Nail Factory.

BALTIMORE, MD., Sept. 17, 1887.
Editor Manufacturers' Record:

Owing to increased demands for steel wire nails and brads, we have leased the new building corner North and Pleasant streets, where, with enlarged facilities, our productions will be greatly enlarged. CHESAPEAKE MANUFACTURING CO.

Roller Flour Mill.

CLOVER BOTTOM, TENN., Sept. 13, 1887.
Editor Manufacturers' Record:

I have nearly completed a roller process mill. Two sets of buhrs, purifier and regrinder and scalper, run by 3½x20 feet over shot water wheel. The mill was built by Mr. G. W. Bolinger, of Jonesboro, Tenn. Name of mill Clover Bottom Mill. E. & C. BACHMAN.

RICHMOND, VA., Sept. 14, 1887.
Editor Manufacturers' Record:

We are going to build a Catholic church in this city. I have the plans ready, but the work is not yet put in the hands of contractors. Will lay the corner-stone this coming November. B. J. BLACK.

BIRMINGHAM, ALA., Sept. 16, 1887.
Editor Manufacturers' Record:

Fire occurred 11th inst. Damage \$13,000 fully insured. Will resume operations soon as building can be repaired and bindery and stock-room refurnished.

CALDWELL PRINTING WORKS

BALTIMORE, MD., Sept. 19, 1887.
Editor Manufacturers' Record:

Have bought the Phoenix Mills and will make all needed improvements to run it as an adjunct of our Mount Vernon Mills. MOUNT VERNON CO., RICH CROMWELL, Pres.

KNOXVILLE, TENN., Sept. 15, 1887.
Editor Manufacturers' Record:

I have just added one of Eaton, Cole & Burnham Co's pipe cutting and threading machines to my shops to save labor and facilitate the handling and working large sizes of pipe; total expenditure, including boiler and other necessities, costing \$1,500. CHAS. KURTH.

Developing Mines in Arkansas.

HOT SPRINGS, ARK., Sept. 15, 1887.
Editor Manufacturers' Record:

The Silver City Mining Company is organized under the laws of this State for the purpose of developing and working their valuable mining properties at Silver City, Montgomery county, Arkansas, 36 miles from this city. There have been assays made as follows on their Silver City mine: Grass root ore, \$3.65; five feet down, \$39.12; 11.5 feet down on main shaft the high-grade ore ran \$425.28 silver, the average ore, white quartz and galena \$121.53 silver, with 52 per cent. lead. The new companies Rubicon, Bunker Hill, Waterloo and Eureka, operating at Silver City, are vigorously prosecuting mining on their rich properties, having the necessary requisities of capital, skill and experience. On the Rubicon an 8-foot fissure vein of galena and white quartz, which assayed at United States mint, New York, \$423.52 silver per ton, free milling. W. J. DUNKLIN, Prest.

Newsy Notes, Agricultural and Manufacturing, from Mississippi.

[Special correspondence MANUFACTURERS' RECORD.]

ABERDEEN, MISS., Sept. 19 1887

A furniture factory has been established at Natchez, with excellent prospects for a fine business and rapid increase of plant.

Mississippi mourns the loss of Col. Reuben O. Reynolds, of Aberdeen, for the last twelve years president of the State Senate, and intimately associated with all of the progressive legislation and progressive enterprises that have characterized the State since 1875.

The Vegetable Growers' Association of Lincoln County held a meeting in Brookhaven last week. The number of acres pledged to be planted in vegetables for export by the association next season was 150. It is likely that this area may be doubled.

The corner-stone of the Normal School building at Buena Vista, in Chickasaw county, was laid in 1885, and now it enrolls 300 pupils.

The Normal Institute at Boonville, Prentiss county, opened its session with 90 students.

The long-discussed project of building a branch railroad from the great gulf coast bee hive, Moss Point, to connect with the Louisville & Nashville line at Scranton, is in fair way of accomplishment.

The State Fair Association's annual fair and races will commence at Jackson, October 17th.

The East Mississippi Exposition Association opens its annual fair at Aberdeen, October 25th. A peculiarity of the fairs of this association is the fine exhibits of hay and butter, and of home-bred horses, mules, cattle, sheep and hogs of fine quality.

All of the ship-yards at Scranton and Moss Point are pushed with work to the full extent of their capacity.

The sorghum crop all over the State is simply enormous this year, and we have glowing reports in regard to molasses from the Louisiana cane.

Crystal Springs, in Copiah county, opened its first bank on the 14th. There is no county in the South where progress in all of the industrial pursuits is more general than in Copiah county, Miss.

The Adams Oil Works, at Natchez, are being furnished with electric lights.

A company of Memphis capitalists is now investigating the Tippah county iron fields, to the west of Ripley.

The dredge boats and mud scows belonging to the United States engineering service are undergoing repairs in the Scranton ship yards preparatory to commencing the work of dredging in Pascagoula river.

The Queen & Crescent Railroad Co. is adding a new, car-shed 300 feet long to its shops at Meridian.

The First National Bank of Meridian has increased its stock from \$100,000 to \$130,000.

Wood-carving is taught to a large class at the East Mississippi Female College at Meridian.

H. C. Ford, of Brandon, is largely engaged in raising fancy breeds of chickens for shipment.

Durant has started a steam wagon factory that is turning out splendid work.

The dairy farms and creameries of East Mississippi are in receipt of orders for butter from Texas, Florida and the mining regions of Alabama that tax their resources to the utmost.

Oktibbeha county, Miss., is the acknowledged headquarters of the dairy interest and Jersey cattle breeding of the South.

Although the shipments by sea from the south coast of the State are mainly to foreign ports and our cities of the North Atlantic, it shipped this month up to September 15 the following forest products to New Orleans by water: 1,695,000 feet of lumber; 320,000 shingles, 270,000 laths, 100,

000 staves, 25,600 barrels of charcoal, 160 barrels of rosin. In addition to these items New Orleans received enormous quantities of forest products from Mississippi by railroads and rivers.

G. n. Stephen D. Lee, president of the Agricultural College, who is also president of the Mississippi Grass and Hay Association, has addressed an open letter to the farmers of the State, calling attention to the hay famine prevailing in many portions of the United States, and urging "the farmers of Mississippi to put up free from weeds and in merchantable condition as large an amount of hay as possible, feeling assured that all good hay will find ready sale during the coming winter and spring. I particularly urge that the Japanese clover crop be harvested during September and until frost. It is easier to cure than any other herbage, and has the highest nutritive value. Arrangements will be perfected for rates on the railroads, and the larger the supply in any locality the better will be the freight rates."

The issuing of this letter, which bears date of September 4th, will result in the mowing of hundreds of thousands of tons of hay in the State that would otherwise have been wasted for our grandest forage crop, the *Lespedeza Strata*, or Japanese clover, does not bloom before the first of September, and the harvest of hay in Mississippi has been governed heretofore by the local demand, as prior to the enactment of the interstate commerce law it was impossible for our farmers to obtain such freight rates as would justify them in packing and shipping hay, though the cars would roll past their doors loaded with the Western product on its way to the Southern seaboard for home consumption or shipment to Mexican, Central American and West Indian markets, at freight rates from Kansas City, St. Louis, Cairo and Chicago that were but a fraction of what was demanded of our people.

This is probably the greatest grass country in the world, and our mowings extend from May until frost, aggregating enormous yields per acre from the native grasses as well as from herds grass, clover, timothy, alfalfa and the other imported growths; and, inasmuch as the only expenditure of the Mississippi hay-maker is for harvesting and packing, we only ask reasonable freight rates to market to enable our State to pose as the leading hay State, as she has long been the leading cotton State of the Union. We believe that under the ægis of the interstate commerce law such rates will be secured, and in that belief thousands of mowing machines and scythes and horse-rakes are now at work, and many hay presses are being erected in all parts of the Commonwealth.

WE invite the attention of our readers to the advertisements of several Alabama towns that are offering great inducements to manufacturers desiring to locate in the South. These places are among the most enterprising in the whole South. They are growing very rapidly and new industries are constantly being established. They are on a most solid basis and their future is certain to be prosperous. Surrounded by vast mineral and timber wealth and by a splendid agricultural county, with a fine climate, summer and winter, and excellent water, there is every advantage to ensure a rapid growth. They are offering liberal inducements to secure the establishment of new industries or the removal from other sections of good enterprises. There are fine openings in all of them for many new enterprises from brick-yards and wood-working establishments to rolling mills, cotton mills and kindred industries. Full information as to these places can be obtained from the several companies whose names are given in the advertisements.

Information About the South

THE marvelous mineral and timber wealth of the Southern States, their unrivalled capabilities as a manufacturing area, and the astonishing progress they are making in developing their natural resources and in utilizing their facilities for manufacture, are attracting the attention of the whole world. The extent of these resources and advantages is so fully and carefully set forth, and the progress of this development so faithfully chronicled from week to week in the **MANUFACTURERS' RECORD**, that it is now accepted everywhere as unquestioned authority on Southern affairs, and its statistics and statements are drawn upon by almost every writer or speaker on any Southern topic.

Its weekly issues constitute an authentic history of the industrial progress of the Southern States. It furnishes every week a vast variety of information on Southern affairs that can be gained from no other source. It discusses in its editorial columns and in its correspondence every topic of Southern interest. It presents the resources and development of the South in all their phases. To all who are in any way interested or concerned in the prosperity of the South, or who care to keep posted as to the industrial and commercial progress of that section, the **MANUFACTURERS' RECORD** is indispensable.

Manufacturers and others desiring to locate in the South, will find the **MANUFACTURERS' RECORD** invaluable. In every issue there are many offers from Southern towns and land companies offering free sites and financial aid to those who will establish new manufactures, or remove their plants from the North to the South. There are hundreds of openings throughout the South for factories of all kinds, foundries and machine shops, brick yards, agricultural implement works, handle factories, all classes of wood-working establishments, &c. If you desire to know what the South is doing, and what opportunities it offers for success in every line of industry, great and small, read the **MANUFACTURERS' RECORD**.

As the leading industrial paper of the South, the **MANUFACTURERS' RECORD** covers that entire section, and is closely read by manufacturers of all classes, mining operators, builders and contractors of railroads, water works, mills of all kinds, &c., merchants, capitalists and business men generally. It is undoubtedly the best advertising medium in existence through which to reach the rapidly developing manufacturing and mining interests of the fourteen Southern States. It is the most widely quoted and highly commended industrial journal in America. It is live, active and progressive, and is the recognized authority throughout the country upon the growth of the South.

Never before in the history of the South were the prospects so brilliant for a wonderful activity in all manufacturing, mining and railroad interests. Moreover, the abundant crops ensure great prosperity to the farmers. More machinery, and supplies for cotton and woolen mills, wood-working establishments of all kinds, iron works, railroads, mines, &c., will be purchased by the South during the next twelve months than ever before in the same length of time; and those who desire to secure a share of this trade, will find that an advertisement in the **MANUFACTURERS' RECORD** will prove a profitable investment, as it will bring their machinery directly before buyers in all parts of the South.

Sample copies and advertising rates mailed on application.

Published by the **MANUFACTURERS' RECORD CO.**

SUBSCRIPTION \$3.00 A YEAR.

BALTIMORE, MD.

Machinery for Paper Mill Wanted.

TALLADEGA, ALA., September 16, 1887.
Editor Manufacturers' Record:
I would like to be put in correspondence with manufacturers of machinery for making paper, as we contemplate the establishment of a plant of that kind in Talladega. The feeling here is good and our furnace matter here is so far progressed that we hope to break dirt for it by November 1st. A spoke and handle factory arranged for.

M. O. ARNOLD.

Sash and Blind Factory.

CONOVER, N. C., September 15, 1887.
Editor Manufacturers' Record:
We intend starting a sash and blind factory soon.

CONOVER MFG. CO.

Will Enlarge Factory.

CHATTANOOGA, TENN., Sept. 15, 1887.
Editor Manufacturers' Record:
We contemplate enlarging our plant and increasing our capital stock to \$25,000. Will put in more cut nail machines, and also add more nail machinery.

CHATTANOOGA NAIL & TACK CO.

Building Spoke and Handle Factory.

DALTON, N. C., September 14, 1887.
Editor Manufacturers' Record:
Mr. H. W. Reid is building a steam spoke and handle factory. Will be in operation by the 1st October.

W. E. L. DALTON.

Brick Machinery Wanted.

DECATUR, ALA., September 11, 1887.
Editor Manufacturers' Record:
I am associated in the brick business with Mr. R. Moulthrop under the firm name of Moulthrop & Stevens, Decatur, Ala. We would be pleased to correspond with manufacturers of brick machines and dryers. Our capacity will be 200,000 per day.

C. A. STEVENS.

Building Tobacco Warehouse.

HENDERSON, N. C., September 12, 1887.
Editor Manufacturers' Record:
Am now at work on a tobacco warehouse, 50x220 feet, one and two stories, to be finished by November 1st, 1887; also contracted for a brick store 16x80, one and two stories.

JOHN B. WATKINS,

Agent for Wm. & C. WATKINS.

Will Build Large New Mill.

TYLER, TEXAS, September 12, 1887.
Editor Manufacturers' Record:
The Tyler Lumber Co., who recently lost their planing mill by fire, proposes to erect at once a new plant to cost not less than \$40,000.

J. D. MOODY, Secretary.

Prospecting for Oil.

MEXIA, TEXAS, September 15, 1887.
Editor Manufacturers' Record:
The Hubbard City Oil & Mining Co. was organized some time since with Hubbard City, Texas, as principal office and headquarters. The object of the company is to prospect for oil, coal, etc., and we began operations in Nacogdoches county in this State.

R. OLIVER, President.

Boiler and Engine Wanted.

SANFORD, FLA., September 17, 1887.
Editor Manufacturers' Record:
I am about to enlarge my planing mill, putting in 40 or 60 horse-power instead of that now in use. The boiler to be two-flue. Would like correspondence.

WILLIAM C. COTTER.

MEMPHIS, TENN., September 17, 1887.
Editor Manufacturers' Record:
We have started our wheelbarrow factory.

WILLIAMS & FARNSWORTH.

Water Works and Gas Works.

AMERICUS, GA., September 16, 1887.
Editor Manufacturers' Record:
The city of Americus will build water works to cost about \$30,000 cash. We advertised for bids, but thinking them high rejected all, (four bids.) We are contemplating the erection of the works by the city under the supervision of a good engineer. Have not as yet decided positively. We have closed the contract for the erection of gas works with W. F. Ellis, Jr. of Montgomery, Ala.

J. B. FELCHE, Mayor.

Will Erect 5-ton Ice Factory.

CLARKSVILLE, TENN., Sept. 16, 1887.
Editor Manufacturers' Record:
We formed a stock company at Kissimmee, Fla., to put in a five-ton ice machine. Elected officers of company here this week. Will commence erecting machinery inside of two months. J. M. Bowling is president, Jno. W. Haxon, secretary and H. B. Willson, treasurer and general manager.

H. B. WILLSON.

To Build Water Works.

CLARKSBURG, W. VA., Sept. 20, 1887.
Editor Manufacturers' Record:
The water works ordinance was ratified on the 13th by a vote of nearly seven to one. \$50,000 is the limit. The preliminaries are being arranged as fast as possible. We expect to be ready to advertise for bids for construction in November (and perhaps last of October).

W. F. RICHARDS.

Water Works to be Built.

BRUNSWICK, GA., September 15, 1887.
Editor Manufacturers' Record:
The contract for putting in water works at Tampa, Fla., has been awarded.

JETER & BOARDMAN.

ROCK HILL, S. C., September 15, 1887.
Editor Manufacturers' Record:
This mill has just put in two horizontal tubular boilers (new), built by the Erie City Iron Works; and are now in shape to use four boilers counting the two old ones. Our motive power is thereby increased, and whenever convenient we can and will add 2,000 spindles, giving us a 10,000 spindle mill.

ROCK HILL COTTON FACTORY CO.

HOLTON, GA., Sept. 14, 1887.
Editor Manufacturers' Record:
We have established a ginny, with 20 horse-power engine, and will add a mill and other machinery.

MYRICK & BOWMAN.

SCOTTSBORO, ALA., September 17, 1887.
Editor Manufacturers' Record:
I will build a grist mill and gin.

D. N. SNODGRASS.

J. H. WILLIAMS & Co., 9 to 15 Richards street, Brooklyn, N. Y., manufacturers of iron, steel and copper drop-forgings and hardware specialties, announce several additions to their standard goods, viz: six new sizes of double head engineers' wrenches, larger than any they have as yet put on the market; also a line of uniform and regular set screw wrenches, covering all the usual sizes, and a complete stock of forged steel thumb-screws. They report business active, and have been obliged to make several additions to their already large facilities in order to keep up with the press of orders. A new illustrated catalogue will be issued October 1st containing a full line of all their specialties.

It is reported that the Westinghouse Machine Co., of Pittsburgh, one of the most extensive enterprises in the country, contemplate establishing branch works in the South, and it is stated that they are looking for a good location.

New Lumber Mills.

HAMILTON, N. C., Sept. 15, 1887.
Editor Manufacturers' Record:
I have a hundred horse-power mill. Have her at work but not finished. We are turning out an average of 30,000 feet of boards per day. Are putting in a re saw. When I get this in and other machinery, can easily turn out 40,000 feet. Have three Curran & Wolff kilns, and am preparing to put in three more. I am also building 15 miles of railway, 25 pound steel rails. Have two locomotives and twenty cars. The road is owned by three of us, in three equal shares, and known as the Hamilton Railroad & Lumber Company. The mill property is mine individually. I am now building at this place a 30 horse-power saw and shingle mill for Messrs. Whedbee & Dickinson, of Baltimore. Will get her started in ten days.

FRANK HITCH.

Electric Light Plant.

JACKSON, TENN., Sept. 15, 1887.
Editor Manufacturers' Record:
This company will put in an entirely new electric plant of 50 lights; steam power for 100 lights. Start with 25 for city and 25 commercial lights, all to be in working order by Christmas day.

CITIZENS' GAS LIGHT CO.

JAMES PUTMAN, Secty.

To Cultivate Ramie.

THOMASVILLE, GA., Sept. 13, 1887.
Editor Manufacturers' Record:
The Pittsburgh Ramie Manufacturing Company are starting in Thomasville a nursery for the ramie plant. The intention of the company is to raise ramie, decorticate and bleach it in Thomasville, and, perhaps also spin it. Other nurseries will very likely be started afterwards.

GEORGE GIBSON.

NASHVILLE, TENN., Sept. 13, 1887.
Editor Manufacturers' Record:
Braid & O'Beirne, agents for the American and Edison Electric Light Companies, of New York, have closed contract with the Citizens' Gas Light Company, of Jackson, Tenn., for a plant of fifty American arc lights, to be used for street lighting; same must be in operation by January 1, 1888. Have also installed a 60 light incandescent plant in the works of the Nashville Ice Co.

BRAID & O'BEIRNE.

FORT VALLEY, GA., September 13, 1887.
Editor Manufacturers' Record:
We have taken a contract on the Atlanta & Florida Railroad of 15 miles.

D. W. VISSCHOR & CO.

MORRISTOWN, TENN., Sept. 16, 1887.
Editor Manufacturers' Record:
We are considering the question of electric lights in our flour mill. Will have some propositions to this end in short time.

MORRISTOWN MILL CO.

C. R. MAKPEACE & CO.
ARCHITECTS and MILL ENGINEERS
PROVIDENCE, R. I. Plans, Specifications and Estimates furnished for Cotton and Woolen Mills.

Resolution Adopted September 9, 1887.

Resolved, That it be hereby made known, to whom it may concern, that the city of Roanoke, Va., is anxious to contract or obligate itself on or before December 31st, 1887, to invest \$50,000 in the interest-bearing securities of some company duly organized, who will erect a rolling mill of certain proportions within the corporate limits of this city, and within such reasonable time as may be agreed upon.

GEO. W. HUBER,
President Council

D. W. K. PEACOCK,
Real Estate Agent,
CARTERSVILLE, GA.
Minerals a Specialty.
Refers to
[THE HOWARD BANK, Cartersville, Ga.
J. J. W. RANKIN, Atlanta, Ga.]

WANTED.

On sale or lease, a tract of good North Carolina country, about 5,000 acres, well stocked with Quail, Woodcock and Turkeys. Negotiation at hard pan price may be effected through

CLARENCE GORDON,
Southern Real Estate Investments,
59 LIBERTY ST., NEW YORK.
Offers of intermediaries, or those omitting full particulars, will not be noticed.

CALERA, ALA., September 14, 1887.
Having made very advantageous business arrangements elsewhere, I will sell the material, good will, books and accounts of the *Shelby Sentinel* at a GREAT BARGAIN. The outfit includes a Campbell Country Cylinder Press, Jobber and a large assortment of carefully selected Job Type. The Job patronage is unusually large for an office outside of a city.

H. G. McCALL.

TRUSTEE'S SALE.

Gallatin, Tenn., Cotton Factory.

Situated at Gallatin, Tenn., 26 miles from Nashville, on Louisville & Nashville Railroad; capacity 7,000 to 7,500 yards of goods per day. Looms 44, but arranged to make when desired 74 or 90; 135 looms, 200 horse power engine; machinery new and in splendid condition; mill within few feet of Chesapeake & Nashville Railroad. There is also attached to factory merchant mill containing one pair of corn rocks (or burrs), and two pair of wheat rocks (or burrs); also some 30 acres and cottages (eleven in number) for operatives. Entire property cost about \$150,000, and will be sold to the highest bidder at Gallatin, Tennessee, October 10th, 1887. Sold without equity of redemption.

For particulars, etc., address

BANK OF GALLATIN,
GALLATIN, TENNESSEE.

COPY OF ORDINANCE

Passed by the Council of the Town of West Point, Virginia, on the 21st day of April, 1879, and re-enacted and approved on the 22d day of March, 1887.

Be it ordained by the Council of the Town of West Point, Va., that any party or parties investing in property in this town for the purpose of conducting any enterprise, such as manufactories, packing houses, &c., and actually operating the same, they shall be exempt from all corporation taxes upon such property, and all machinery and improvements thereon, for the term of ten years from the purchase of such property.

It is also ordered that the Mayor is hereby instructed to advertise this ordinance in the "MANUFACTURERS' RECORD," a paper published in the City of Baltimore, Md.

E. WILKINSON, Mayor.

Receiver's Sale of Princeton Factory.

BY virtue of a decree of Clarke Superior Court rendered at the April term 1887, in the case of Bank of the University, et al, vs. Princeton Factory: I will sell before the Court House door in Athens, Ga., within the legal hours of sale, on the first Tuesday in October, 1887, at public outcry for cash, the entire property of Princeton Factory, including its franchise, free from all liens and incumbrances.

The franchises are contained in an act of the General Assembly of Georgia, incorporating the Camak Manufacturing Company, and the several acts and orders of court amendatory thereof. The property consists of one hundred and thirty acres, more or less, of land lying in Clarke County, Georgia, two and one-half miles from Athens, on the Watkinsville road, forty acres, more or less, lying on the west side of the Oconee river, and the balance on the east side; a rock dam across the river; a brick metal roof mill building; brick metal roof office and warehouse; one eight room dwelling; one four room superintendent's house; two four room cottages; twenty-one cottages, two to four rooms each; carriage house and stables; the machinery in said mill consisting of the following articles:

1 Kitson Compound Opener Lapper, 36; 1 Kitson Finisher Lapper, 36; 24 Foss and Perry, 36 under flat car, built by Lowell shop; 4 Railway Heals Troughs and Belts, built by Lowell shop; 4 Drawing Frames, built by Rogers & Co.; 3 Drawing Frames, built in 1887 by Lowell shop; 1 coarse Speeder, 50 spindles, built by Lowell shop; 1 fine Speeder, 60 spindle, each, built by Lowell shop; 1 fine Speeder, 72 spindles each; 60 large Cotton Cans; 1 Card Grinder for slabs; 250 small Cotton Cans; 1 Card Grinders for doffers and cylinders, card camp, hammer, &c.; 25 Spinning Frames, 144 to 172 spindles, in all 3,280 spindles; 2 Twisters, 144 spindles each, in all 288; Draper (nearly new); 1 Draper Spooler, 80 spindles; 3 Wood Spoolers, 60 spindles; 3 Lowell warpers in good order; 23 Beams for warpers, and extra beams for looms; 1 Frame Loom Beams; 1 Lowell Hot Air Slasher; 1 Lowell Dresser, copper cylinders; 84 Lowell 36 inch Looms of which 40 are worn; 16 Lowell 36 inch Looms; Reeds for Sheetting, Duck and Onaburgs, harness for a part in good order, the balance of harness worn; Bobbins and Skewers for speeders and spinning frames; 1 Cloth Dresser, Lowell make; Office Furniture and Desks; 1 Marvin Safe; 1 Cloth Folder and Measurer, Lowell make; 1 Baling Press; 3 Trucks and 1 Jack Screw; 1 Yarn Press; 1 Lathe and To Is, New Haven Manufacturing Company; 1 Gear Cutter; 1 Press Drill; 1 Handing Twister; Galvanized Buckets and Safety Lamps for each room; 2 Large Reflectors for picker room; 8 old Spinning Frames and 12 old Cards, old gear, pulleys and hangers; 1 Hercules Water Wheel, 210 horse power (about 120 now used); excepting 30 Looms and the Twisters, the balance of the machinery is running; 1 pair Mules and Wagon and other articles of personal property connected with mill and machinery.

The place is healthy and water pure, three miles from railroad station, and mid-way between Athens and Watkinsville.

A right to sell the property at private sale before the day above mentioned is reserved.

Terms cash on the day of sale.

ANDREW J. COBB, Receiver.

DECATUR

— ALA. —

GREAT ★ INDUCEMENTS

✻ Offered to Manufacturers ✻

★ TO LOCATE IN NORTH ALABAMA. ★

THE Decatur Land, Improvement & Furnace Co.

WITH A

PAID-UP CAPITAL OF \$1,000,000.

WITH 5,600 ACRES OF TOWN LANDS AND 50,000 ACRES OF MINERAL LANDS, WITH MAGNIFICENT

MANUFACTURING SITES LOCATED ON THE TENNESSEE RIVER, IS PREPARED TO OFFER

GREAT INDUCEMENTS TO MANUFACTURERS IN THE WAY OF SITES,

AND MONEY AT LOW RATES OF INTEREST, AND THE

BACKING OF A POWERFUL COMPANY.

→ TWENTY-SIX ★ INDUSTRIES ←

HAVE LOCATED HERE THE LAST FOUR MONTHS.

WATER COMMUNICATION WITH THE MISSISSIPPI RIVER ALL THE YEAR ROUND.

Two trunk lines of Railroad, the Louisville & Nashville and the Memphis & Charleston, cross the river at this point.

Two more trunk lines in process of construction.

IMMENSE FORESTS OF HARD WOOD AND PINE AND BOUNDLESS QUANTITIES OF COAL AND IRON IN EASY REACH. THE WORKINGS OF THE INTERSTATE COMMERCE BILL WILL RENDER NORTHERN COMPETITION PRACTICALLY OUT OF THE QUESTION.

The Summers in this region are Cool, the Winters Pleasant and the Locality very Healthy.

CORRESPONDENCE WITH MANUFACTURERS SOLICITED.

ADDRESS ALL COMMUNICATIONS TO

WM. E. FOREST, SECRETARY, - - - - - DECATUR, ALA.

Big Stone Gap and its Wonderful Mineral Wealth.

BRISTOL, TENN., September 13, 1887.
Editor Manufacturers' Record:

There seems to be some excitement relative to the future city at Big Stone Gap, Wise county, Va., and several letters relating to it have been published, yet I do not think, in the words of the Queen of Sheba, "that the half has been told." When one comes to see the excellent advantages that nature has been so lavish in bestowing in its great coal fields, its mountains of iron and limestone, its millions of acres of the finest hardwood timbers, its fine pure mountain waters (both free and mineral), its magnificent water power (90 feet to the mile), and the splendid blue grass valleys adjacent, sufficient to raise thousands of stock, we need not wonder why comes the enquiry from every portion of the country, where is Big Stone Gap? And how come the great moneyed powers from all sections of the country—companies representing hundreds of millions of dollars—building railroads in every direction, north, east, south, west and intermediary from this place? Birmingham, Ala., Pittsburgh, Pa., and Big Stone Gap are the only places in the United States where coking coal and iron come so near together and so easily accessible in such immense quantities and in a somewhat similar way, but Big Stone Gap is claimed to have many advantages over either in equable climate, water, water power and natural drainage. The Eastern Kentucky coal fields adjacent to this point are much larger than those adjacent to either of the places mentioned, and the quality is far superior to either. From the assays and reports of three of the best geologists now in the entire country I make the following extracts, while Professors Byrd and Ruffner, of Virginia, and Procter, Crandell and Hodges, of Kentucky, all testify to the superior quality of its coking coals.

"Extracts of Assays and Reports of Coals at Big Stone Gap by Professors McCreath, of Harrisburg, Pa.; Franklin Platt, Philadelphia, Pa., and John J. Stevenson, of the University of New York City, from pages 145 and 146 of the United States Report on International Commerce for 1886, by Hon. W. F. Switzler, Chief of Bureau of Statistics, Washington, D. C."

The 'field' at Big Stone Gap has been most thoroughly examined and reported upon by Professor John J. Stephenson, of the University of the City of New York, who stands without a superior in knowledge of the soft coal formations of the United States. He has made two elaborate reports on these coals, and they have been endorsed by Franklin Platt, of Philadelphia, geologist of the American Iron and Steel Association, after a personal visit to the locality.

In his first report Professor Stevenson says: 'The available coal seams are four—the two splint beds, the 15-foot and the 8-foot bed. Eventually the cannel bed may become valuable, but at present it may be omitted. The splint beds lie well up in the series. * * * These beds yield a coal of very superior quality, as appears from the following analysis by Mr. A. S. McCreath, chemist of the Geological Survey of Pennsylvania. The sample was taken from the upper bed:

Water, .088; volatile matter, 37.58; fixed carbon, 58.056; sulphur, .406; ash, 3.075.

This coal is sufficiently pure to be used raw in the furnace, the percentage of ash and sulphur being unusually low.

These two beds will yield not far from 8,000 tons per acre. Estimating the area of easily mined coal (on Looney creek alone) at 5,000 acres, the yield will be not far from 40,000,000 tons.

A specimen was taken from the middle division of the 14-foot bed, which yielded the following by Mr. McCreath:

Water 1.61; volatile matter, 38.85; fixed carbon, 57.879; sulphur, .771; ash, .89.

As a gas coal this can hardly be excelled.

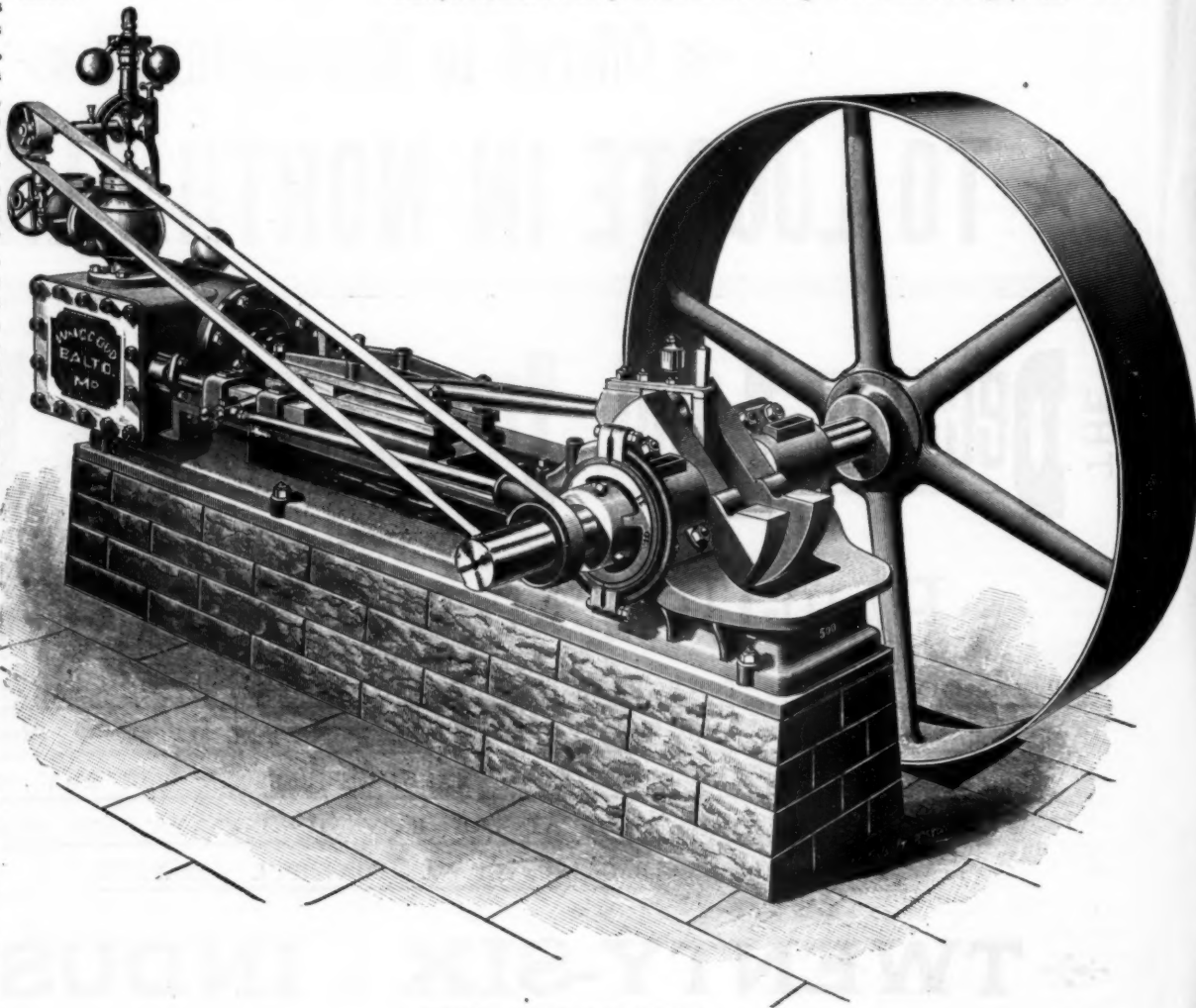
The 8-foot seam being most persistent and least variable of the whole series, and being

likely to prove the most valuable, as its coal yields an admirable coke, I took samples from all the benches and directed that they be analyzed as one. The result, as obtained by Mr. McCreath, is as follows:

Water, 1.38; volatile matter, 35.92; fixed carbon, 60.591; sulphur, .594; ash, 1.515.

In reference to these coals Mr. McCreath says: The above analyses speak for themselves and indicate coals of remarkable purity.

This 8-foot seam will yield a coke with considerable less than 3 per cent. of ash, and with little more than $\frac{1}{2}$ per cent. of sulphur. Such would be a marvellously rich coke, the percentage of fixed carbon being somewhat more than 96. The Connellsville coke has something less than 90 per cent. of fixed carbon, and the ash is between 9 and 10 per cent. The coke from this bed is better than that from the Oxmoor Works in the Cahaba basin of Alabama, which shows:



DETACHED CENTER CRANK ENGINE.

Fixed Carbon, 93.253; sulphur, .601; ash, 5.38.

The area of the coking seam (8 feet) which can be opened along the tributaries of Powell's river behind Big Stone Gap, is not less than 50,000 acres, and that of the splint coals is probably not far from 35,000 acres. Taking 7 feet as the average thickness of the coking seam, and 6 feet 6 inches as that of the combined splints, the available coal within this area is not far from 750,000,000 tons, ignoring the variable 14-foot seam, which, having an area equal to that of the coking seam, would add greatly to the total.

Such is Professor Stephenson's testimony. To form an idea of the vastness of this supply of coal from a small area of only 50,000 acres of land, reduce it to train loads, and allow ten trains a day, each carrying 200 tons, or 2,000 tons in the aggregate per day, for 300 working days in the year, and it would require 1,250 years to haul out the splint and coking coal alone from this small area, not to mention the gas coal and cannel left out of the computation, and both of

these are in great abundance and of unsurpassed quality."

This coal is from the celebrated Elkhorn coal fields adjacent to Big Stone Gap, which is on the dividing line between Virginia and Kentucky. This is destined to be the most important coking coal field in America, as it far surpasses in extent the Connellsville coal area, and the coke is superior to Connellsville coke.

Regarding the cost of making pig iron at Big Stone Gap, Prof. John R. Procter claims that it can be done for \$8.25 a ton, against \$11 at Birmingham and \$16.25 at Pittsburgh.

The iron ore is the same in quality as that at Birmingham, being a red fossiliferous ore, easily reduced, and seeming to be inexhaustible in quantity, beside being nearer the great magnetic iron fields of Southwest Virginia and West North Carolina by many hundred miles. The timbers are walnut, poplar, white oak, ash, hemlock, lynn, buckeye, cucumber, hickory, mountain ma-

tol, Knoxville, Chattanooga, Birmingham, Anniston, Sheffield, Nashville, Louisville, St. Louis, Cincinnati, Chicago and many other places with coke.

Within the last few days I have learned that coke ovens will be constructed at once at the Gap, the arrangements having all been completed.

I have traveled over a great part of the United States, and in the words of a gentleman who has travelled over nearly every part of the civilized world (and who has recently seen Big Stone Gap), I can truly say: "I have never yet seen such a place as Big Stone Gap for a manufacturing city." E. B. M.

Detached Center Crank Engine.

We herewith present an illustration of the new engine made by Wm. C. Codd, of Baltimore Md. It is of the Detached (Center Crank) pattern. The picture shows the engine exactly as it is, and plainly shows the crank balance. The engine is self-contained and cannot get out of line even though the foundation might settle. This

engine may be connected to any style of boiler. The cylinder is set low on the bed and the exhaust is so arranged that it drops out of the bottom and below the ports, so that it is impossible for the cylinder to hold any water, which usually collects, particularly when long steam pipe is used, connecting the engine to the boiler. The slides are the plain locomotive slides and the best that can be used, as they are the most simple and easiest to adjust. The valve rod and piston rod are steel, and valve rod guide has two V-shape boxes so arranged that the near or lost motion can be taken up. The governor used is either the Class B, Gardner, which has a sawyer's valve in the governor, or I finish, if preferred, Class A, Gardner, which is automatic, that in case the belt by accident should break or slip off, the governor will immediately stop the engine. By the attachment of the reversing link the engine is well adapted for hoisting or other uses when frequent change of movement is required. The engine complete includes pump, heater, governor, throttle valves and necessary oil cups. Further particulars can be obtained from Wm. C. Codd, 2,010 and 2,012 Aliceanna street, Baltimore, Md.

TRADE NOTES.

THE Page Belting Co., of Concord, N. H., are very busy with orders. They manufacture staple goods in both belting and lace leather, which has already attained an excellent reputation and secured for the company a large trade. Their specialties in these goods are becoming widely known, and a rapidly growing trade is the result. Among these specialties is the new lacing called the "Hercules," made by a new principle after many years of experiment and study by the Page Belting Co. Their trade extends all over the world. Among the shipments recently made is the belting and lace leather for the new works of the Northern Pacific Terminal Co., of Portland, Oregon.

A Strong Letter.

MOBILE, ALA., August 22, 1887.

Mr. David Boyle, Chicago, Ill.:

DEAR SIR—It gives me great pleasure to state that after seven seasons running for one of our machines and six for the other, that they are turning out as much ice as they ever did. The "Boyle" is really the only "hot weather" machine I have ever seen. The time you need your product most the "Boyle" is right there to turn it out for you. When we first started in this city few or none of the people would have "artificial" ice, even if you gave it to them, but year after year we have turned out such pure, clear, tasteless ice that their prejudices have been entirely eradicated. I have personally examined many other machines, but the day will yet have to come when I take from the "Boyle" the palm to give to another. Wishing you much success (for you certainly deserve it), I am yours very truly,

A. S. LYONS,

Supt. Mobile Ice Factory.

THOSE who are interested in scientific development, and desire to keep pace with its progress, will find on another page of this issue a short list of the latest books relating to the subject, from the pens of the most eminent men in their several departments. These will include physics, mechanical and civil engineering, arts, trades, manufactures, &c. This list will be changed from time to time as new books are issued, keeping before our readers the latest development in the use of electricity, the newest mechanical devices, or the most recent discovery in the arts. The publishers are E. & F. N. SPON, London, Eng., and 35 Murray street, New York.

WE call attention to the advertisement of the Howell Patent Rain Water Cut-Off, for turning the water into or off the cistern, by merely moving the lever from one side to the other. This cut-off is well made of the best materials, is light and cheap, and has the reputation of taking first premium at all the fairs or expositions where it has been exhibited. If the reader wishes to lay in a supply of good, pure rain water for the winter, free from decayed leaves, they should insist on having a Howell Cut-off. Much sickness is caused by decayed matter in the water we use each day, and it is a matter of too much importance to be neglected at this season.

THE M. C. Bullock Manufacturing Co., of Chicago, report the following among late important shipments: To Bessemer Mining Co., Hurley, Wis., four 5 feet Standard band friction hoisting drums, Lane's patent, with an 18x32 inch engine; to Jackson Iron Co., Negaunee, Mich., one double portable band friction hoist; to E. B. Hamlin, Chicago, Ill., one gas engine; to David Boyle, for Fairbanks Canning Co., Chicago, Ill., one 75 ton ice machine; to the Iron Belt Mining Co., Hoyt, Wis., two five feet Lane Standard drums and one 18x24 inch engine; to the South Elgin Stone Quarry Co., Elgin, Ill., one quarry drill and outfit.

The Louisville Hotel.

Few hotels in the South or West have gained the reputation that the Louisville Hotel has in the mode and manner of conducting a public hostelry. Col. Kelley, the manager, has infused new life in the old Louisville Hotel, and under his immediate charge it has gained a big reputation, not only for its most excellent table, but for the progressive ideas he has adopted in the culinary art, and the manner in which everything is served. Few hotels in the country are run on the scale of the Louisville Hotel. Col. Kelley spares neither time or money in keeping abreast of the times. The rooms at the Louisville Hotel are delicious nooks of rest and repose, and here the weary traveler finds a haven of rest. The table cannot be surpassed, either in its menu or in the manner in which the food is cooked. The magnificent service, uniform, polite and attentive, is one great attraction of the dining-room, while the viands, always in season, are enough to tempt the palate of a modern Archestratus. Col. Kelley is a born manager, and the reputation of the Louisville Hotel to-day owes much of its success to his skill and ability. Few men there are that are adapted to run or manage a public hostelry in first-class style and judgment, but mine host Kelley is an exception to the general rule. Under his management this hotel will continue to grow both in reputation and in popular favor.

THE Ingersoll Rock Drill Co., of New York, have received the following: "The progress made this week on the north end is 41 feet of heading, and on the south end is 48 feet of heading and 38 feet of bench. This is the best work done since starting, and, considering the size of the tunnel, which is 21x16 feet inside of timbers, we think it a creditable showing. If we would not have to timber we could make 60 feet per week. The Ingersoll drills and air compressors are working splendidly on both ends of the tunnel."

If you contemplate a visit to New York you should send for a copy of a comprehensive, well written and accurate guide to the city—128 pages and map—entitled "How to Know New York." Sent on receipt of 6 cts. in stamps. Address Advertising Department, Grand Union Hotel, New York. †

Literary Notes.

POOR'S MANUAL OF THE RAILROADS OF THE UNITED STATES FOR 1887. By H. V. Poor. H. V. & H. W. Poor, 70 Wall street, New York.

The twentieth annual number of this unique work was issued a few days ago. It contains 21 pages more of reports than last year and 96 less of introduction. The table of stock and bond values is for 1886 only, with a supplementary table for the first six months of 1887, and the reader is referred to the 1886 volume for the values for the eight preceding years. The table of dividends is omitted, as is the table showing the mileage of each railroad in the several States. These changes account for the reduced length of the introduction. The omission of the dividend table strikes us as rather unfortunate; at least, the introduction of it last year seemed a useful innovation. The interstate commerce bill is printed in full and rubricated for handy reference. Some changes have been made in the body of the manual. The companies are now arranged according to the groups adopted last year in the tables of the introduction by certain "natural divisions of the country, in order to give a better idea of the relative amounts of their traffic." And to some students of this volume this will probably be a convenience. At any rate, it is desirable to arrange the reports in some order, with which one can familiarize himself. For the subordinate matter under each report a smaller type has been used than heretofore, and much additional matter can conse-

quently be given without increasing the bulk of the volume. The maps are in most cases on larger scales than last year, and have less detail and are more attractive and often more useful, notwithstanding the very awkward way in which they are pasted in. We have spoken of this as a unique work, and, indeed, there is nothing like it in the world, more is the pity. It is a monument of industry, knowledge and analytical ability.—Railroad Gazette.

In the fourth paper of his series on "The Economic Disturbances since 1873," to appear in the October Popular Science Monthly, Hon. David A. Wells will enforce his view that the recent decline in the prices of sugar, wheat, iron, and other staple articles is in each case an inevitable sequence from a great multiplication and cheapening of commodities through new conditions of production and distribution, which in turn have been mainly due to the progress of invention and discovery.

Important.

When visiting New York city, save baggage express and carriage hire, and stop at the Grand Union Hotel, opposite Grand Central Depot.

600 handsomely furnished rooms at \$1 and upwards per day. European plan. Elevators and all modern conveniences.

Restaurants supplied with the best. Horse cars, stages and elevated railroads to all depots. You can live better for less money at the Grand Union Hotel than any other first-class hotel in the city. †

THE American House, Boston, holds its popularity as well as any hotel in the country, on account of its central location, excellent management and liberal charges for first-class accommodations. †

WHEN in Cincinnati, stop at the Palace Hotel. Rates, \$2.00 and \$2.50 per day; meals, 50 cents each. Elegant rooms; fine table, and centrally located. †

A. P. THAYER,
Solicitor of U. S. and Foreign
PATENTS,
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Experience of Over 20 Years.



VICTORIOUS EVERYWHERE.
COMBINED
Cotton Seed Huller, Corn and Cob Grinder.



BOOKS FOR
Engineers and Manufacturers.

METAL-PLATE WORK; its Patterns and their Geometry. Also notes on metals and rules in mensuration. For the use of tin, iron and zinc-plate workers, copper-smiths, boiler makers and others. By C. T. Mills. 311 pages, with six plates and numerous diagrams. 8vo, cloth \$3.

Practical Electric Lighting. By A. B. Holmes. Explaining the principles in plain language, and giving instructions as to the proper care of the apparatus. 163 pages with 37 illustrations. 8vo, cloth \$1. Catalogue and circulars free.

E. & F. N. SPON,
35 Murray Street, NEW YORK.

Machinery,

Iron & Wood Working.

ENGINES AND BOILERS.

Shafting in Stock:

1 3-16, 1 5-16, 1 7-16, 1 11-16, 1 13-16, 1 3-8, 1 7-8.

Pulleys, Hangers and Belting.
EMERY WHEELS AND
Emery Grinding Machinery.

VERTICAL ENGINES,
3, 5, 6, 8, 10, 20 H. P.

Prices and estimates on Application.

C. L. JACKSON & CO.

No. 14 W. GERMAN ST.
BALTIMORE, MD.

FOR SALE.

Machinery.

No. 10 Bliss Press, same as new.
No. 9 Garvin Miller, same as new.
Garvin Tapping Machine, same as new.
Polishing Machine, (Diamond,) same as new.
No. 3 Emery Grinder, same as new.
12-in. Double Table Shaping Machine, new.
10-in. Shaper, Boynton & Plummer, new.
Planer, 24x4, second-hand.
Planer, 20x4, Lincoln, second-hand.
Planer, 24x6, Pond, new.
Planer, 30x8, Pond, new.
Planer, 24x5, Pond, new.
No. 1 Garvin & Spindle Drill, good order.
23-in. B. G. S. F. Upright Drill, new.
24-in. " " " " " "
25-in. " " " " " "
20-in. Upright Drill, B. G. S. F. "
23-in. Old-style Drill, B. G. "
Engine Lathe, 32x16, new.
Engine Lathe, 28x16, new.
Gage Turret Lathe, complete with slide rest, same as new.
Perkins' 24x6 Lathe, excellent order.
Gage Hand Lathe, excellent order.
Engine Lathe, 28x14, new.
Engine Lathe, 28x10, new.
Engine Lathe, 28x12, new.
1 Engine Lathe, 30 in x 8 ft., compound rest, second-hand.
1 Engine Lathe, 16 in x 7 ft., second-hand.
Engine Lathe, 23 in x 12 ft., new.
Engine Lathe, 15 in x 6 ft., B. G. Screw-Cutting.
Engine Lathe, 18 x 6 ft., power cross-feed, new.
Engine Lathe, 18 x 8 ft., power cross-feed and compound rest, new.
Engine Lathe, 20 in x 8 ft., power cross-feed and compound rest, new.
1 11-in. x 5-ft. B. G. Hand Lathe, with Chucks, second-hand.
An Electro-Plating Equipment.
Scientific Forge, Fairbanks'.
6-inch Double Cutting-Off Machine. Wood, Jenison & Co.
Patterson Forge with Hood No. 1.
Cold-Rolled Shafting, Hangers, Pulleys, &c.
AGENTS FOR
L. W. Pond Machine Co. Planers.
Currier & Snyder Drills.
McMahon & Co. Lathes.
Pay & Scott Engine Lathes.

FRASER & ARCHER,
121 Chambers St., New York.

For Sale Cheap

One No. 4 Sturtevant Blower, with counter shaft; second hand.
One No. 1 Keystone Forge; second hand.
One No. 6 Buffalo Forge, with water tank for power; new.
Two Roller Feed Pumps, section 1 inch, and 4-inch charge 1 1/2 inch.
One Power Doler Punch, second hand; punch 3/4 hole.
One Lawson Vertical Gas Engine, 3 horse power.
One Horizontal Steam Engine, 3 horse power; second hand.
One Vertical Steam Engine, 3 horse power; new.
One Vertical Steam Engine, 5 horse power; new.
One Vertical Steam Engine, 12 horse power; new.
One No. 6 Friedman Injector.
One Planer; second hand; 30 inch by 32 inch by 9 feet.
One Combined Engine and Boiler, 3 horse power; new.
One 40 to 60 horse Automatic Engine; new.
One 15 horse power Horizontal Engine and Boiler; new.
A complete Laundry Outfit; used 3 months.
One Blake Steam Pump, 2-inch section, 1 1/2-inch discharge.
One Horizontal Tubular Boiler, 30 inches diameter x 16 feet, with 40-3 inch tubes; also 48-inch x 12 feet, with 54-3 inch tubes.

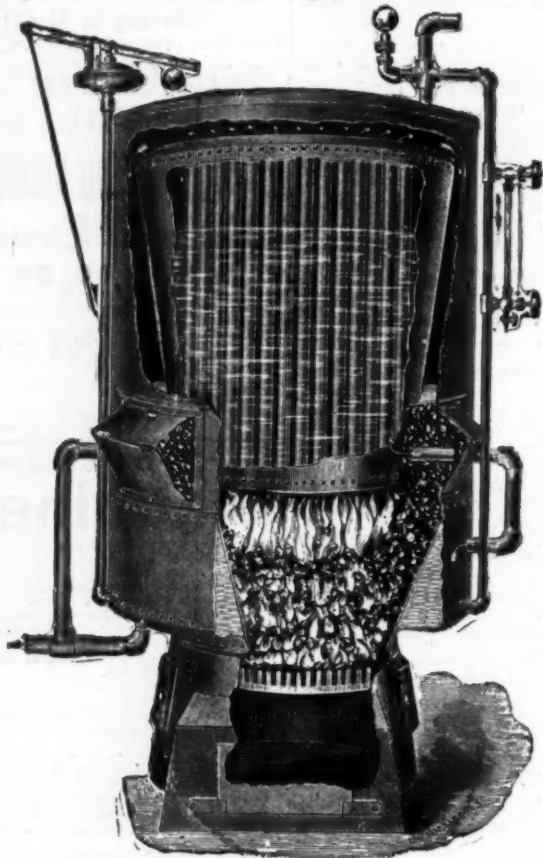
WM. C. CODD,

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BALTIMORE, MD.

Improved Steam Heater.

The question of house-heating is an important and oft-times troublesome one. With so many heaters, steam and hot air, now upon the market, each claiming superiority over the other, it is very often a difficult matter to decide which to select. The great economy of steam heaters, their free-

This ensures perfect combustion and a uniform temperature. The Gorton boiler requires filling but once in from twelve to twenty-four hours, according to the state of the weather. It can be made to burn hard or soft coal and can be used for manufacturing purposes as a boiler as well as for house-heating, being fully guaranteed for a working pressure of 100 lbs. An illustrated



IMPROVED STEAM HEATER.

dom from dirt, self-care and absence of danger from conflagrations, caused so frequently by long-dried timbers igniting with hot air pipes, is readily perceived and endorsed. One of the most favorably known steam heaters is the Gorton, and, although the above illustration is familiar to every one, yet the Gordon & Lidgerwood Co. have made so many improvements since this boiler was first presented to the public that, as now constructed, it is entirely different and much superior to the original steam-heating boiler manufactured by them. It is known as a side-feed boiler, and is dissimilar to any other used for heating purposes. In construction it is of the upright tubular pattern, with the additional advantage of being self-feeding, as well as surface-burning. The coal reservoir is between the outer surface of the boiler and the water leg, thus economizing a space of from nine to twelve inches in diameter out of the center of the boiler for active heating purposes. The coal pockets are so situated that there is no reaching up over one's head with a scuttle of coal to put on fuel, being placed sufficiently low down to enable anyone, even a child to feed it. The grate is "cupped" and the coal feeds down as it is needed, distributing itself uniformly over the surface. A recent improvement consists of additional air spaces, which provides for the free circulation of air to the combustion chamber. It is known that the amount of steam produced is in proportion to the regularity and intensity of heat employed to generate it. It is plain to understand that the temperature of the fire being lowered through clogging of the grate with ashes, the temperature of the premises is proportionately affected. With the improved grate as now furnished with the Gorton boiler this clogging is claimed to be impossible, for in whatever manner the ashes may fall upon the grate, they cannot interrupt the draft.

pamphlet on "Modern Househeating," issued by the manufacturers, the Gorton & Lidgerwood Co., may be had at their office and salesrooms, 96 Liberty street, New York.

Prosperous Times at Gadsden.

GADSDEN, ALA., Sept. 19, 1887.

Editor Manufacturers' Record:

Work on the Elliott Car Works is progressing finely. Two of the immense buildings are up and the roof is being put on; the engine is in place and construction tracks in the yard are all completed. Capt. Elliott, the president and general manager of the car works, has secured the control of the Round Mountain Cold Blast Charcoal Furnace, thereby securing a supply of the finest charcoal car wheel iron made on the continent, so that everything is moving and working smoothly to secure for the Elliott Car Works Co. unequalled advantages. The Gadsden Furnace is being rapidly pushed to completion. The contractors of the bridge across the Coosa are working a day and night force, and it will soon be ready for the trains. The new metallic paint mills will start up on October 1st with six months' orders ahead. The hum of industry is heard on every side. Our mechanics are full of business, and we expect Gadsden to boom as soon as fall sets in as no Southern city has done in the past. We have all the natural advantages to build up and sustain a magnificent city and the world is finding it out. Property holders are not wild as they are in some manufacturing cities, but prices are reasonable and investors will make big money by putting their means in Gadsden real estate and Gadsden Land & Improvement Co. stock.

THE GADSDEN LAND & IMP. CO.
M. L. FOSTER, Sec'y and Treas.

Endless Carrier Made of Open Pans or Boxes.

The conveyor shown herewith is one of the many uses to which roller chain is applied with great success. The roller chain in this form has a larger roller, and, from the peculiar formation of the side links, has better action. For this class of conveyors the chain is made up wholly of attachments to which the pans are bolted, which forms a solid floor for the trough to rest upon. Each trough has but one fastening, to allow them

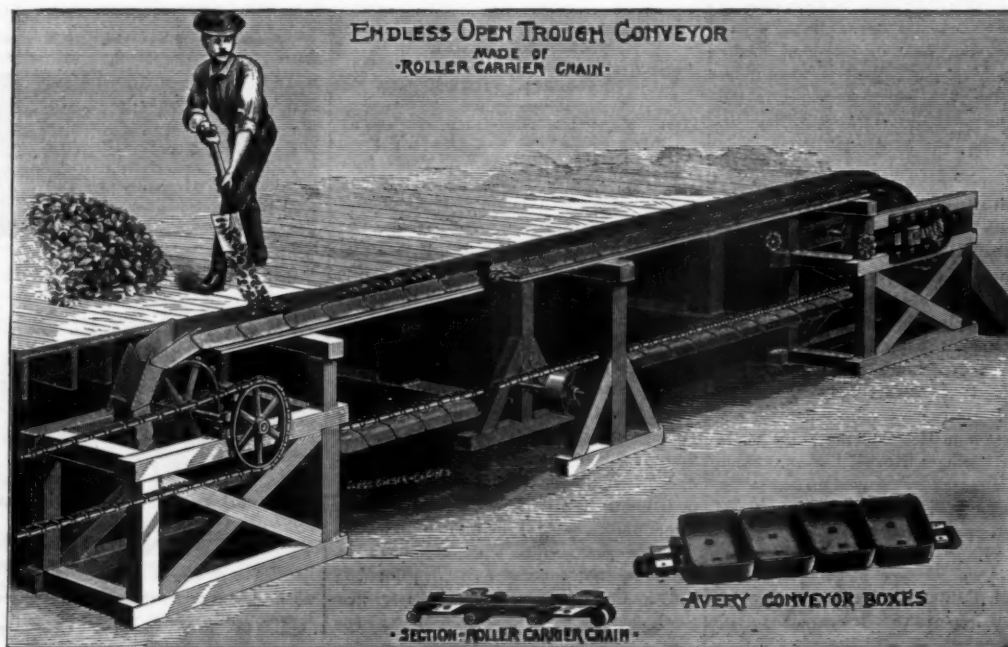
or iron pulleys, used as idler wheels, upon which the inside or bottom of trough rests. The Avery conveyor boxes are also specially adapted to the work and answer the same purpose. These conveyors are made of either single or double strands of chain, according to the size of trough and capacity required, which is unlimited. This conveyor, being made entirely of iron, is fire proof, and is well adapted to carry hot ores, coal, coke, stone, &c. With pans or troughs 12 inches wide and 4 inches deep this conveyor will carry 40 to 50 tons per hour. These conveyors have been thoroughly tested in coal, ores, clay, &c., and proven very satisfactory. For prices and full particulars address Roller Chain Belting Co., Columbus, Ohio.

A Big Enterprise.

SHEFFIELD, ALA., September 14, 1887.

Editor Manufacturers' Record:

As already stated in the MANUFACTURERS' RECORD a consolidation was recently effected between the Alabama & Tennessee Coal & Iron Co., which has three large iron blast furnaces under construction at Sheffield, with the Sheffield & Birmingham Railroad Co., which is completed from Sheffield 52 miles, and will soon be completed to the Kansas City. Memphis & Birmingham Railroad, which will give a line from Sheffield, through the Franklin county brown hematite ore deposits, and the celebrated Warrior coal field, to Birmingham. The name of the consolidated company is Sheffield Coal, Iron & Railway Co. Its capital is \$8,250,000. It owns, in addition to railroad and three furnaces, 80 acres of land and one-third interest in a fourth furnace at Sheffield, and nearly one hundred thousand acres of coal and iron lands, chiefly lands in the Warrior coal field. The railroad runs through many thousand acres of the company's lands, on which extensive mines will be opened. Numerous coking ovens will soon be erected, the coal having been tested and pronounced very superior for furnace coke. The company is very strong financially and will, no doubt, carry into effect its expressed intention to establish a line of barges on the



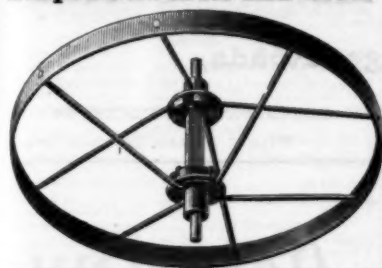
ENDLESS OPEN TROUGH CONVEYOR.

MANAGERS of mills, factories, furnaces, mines, etc., and parties starting manufacturing enterprises, and needing machinery or supplies of any kind, will find it profitable to consult the advertising columns of the MANUFACTURERS' RECORD. Its pages contain names of the best houses in the country among manufacturers of and dealers in machinery and mill supplies,

to pass over the sprocket wheels. The troughs are so arranged on the chains that they overlap, and in passing over the sprocket wheels at the point of discharge do not separate, but are always connected, so that there is no possibility of their becoming entangled, nor to allow the contents to fall upon the wheels. The conveyor, on its return, is carried back by means of wooden

Tennessee and connecting rivers, and thereby hasten the time when Sheffield will be the acknowledged iron manufacturing and coal center of the South. Col. E. W. Cole, of Nashville, Tenn., is the president of the Sheffield Coal, Iron & Railway Co. The office is at Sheffield, Ala., in charge of Mr. E. C. Doud, superintendent and assistant secretary.

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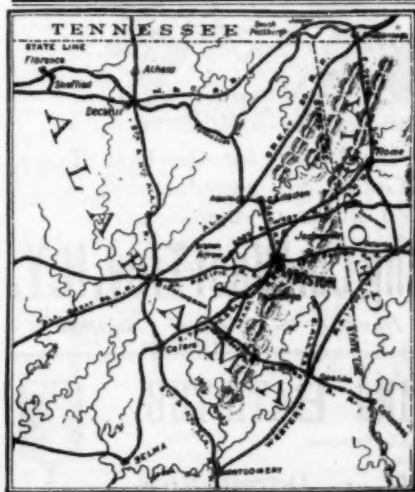
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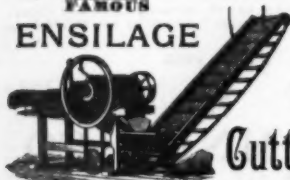
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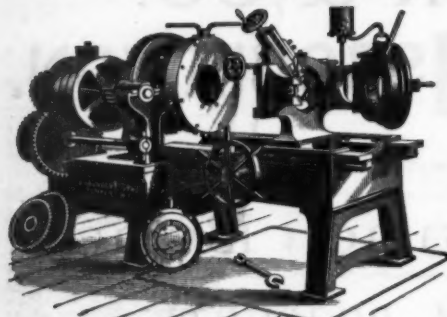
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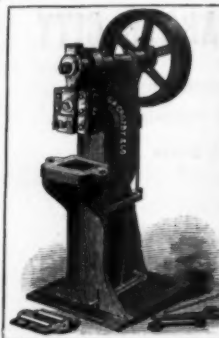
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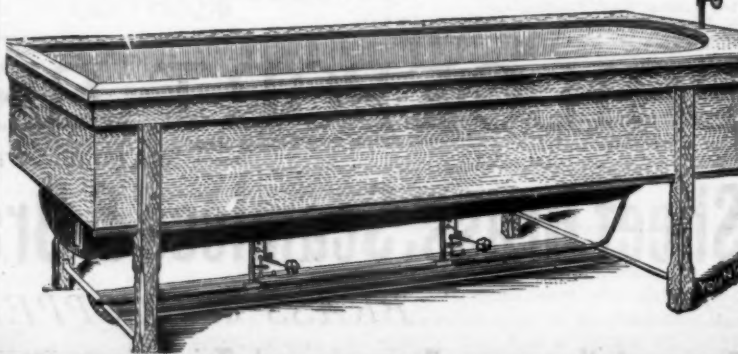
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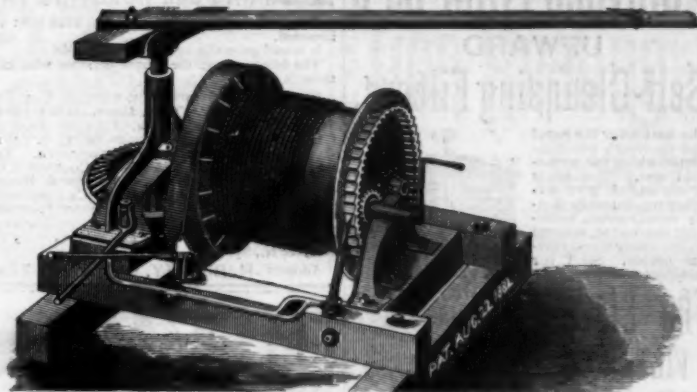
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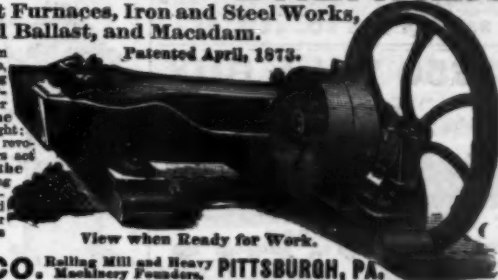
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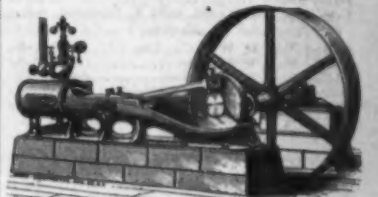
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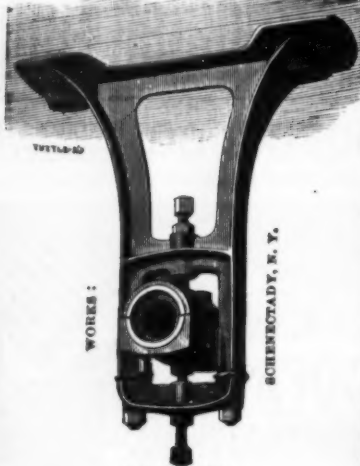
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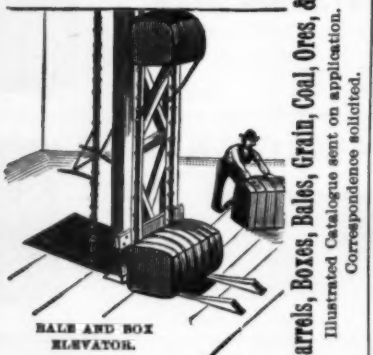
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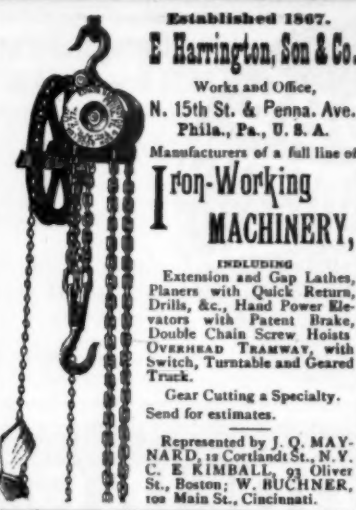
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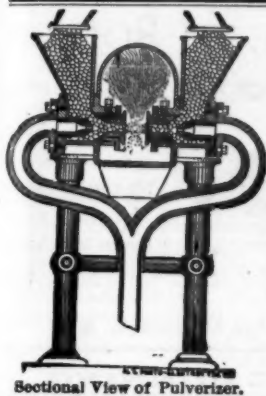
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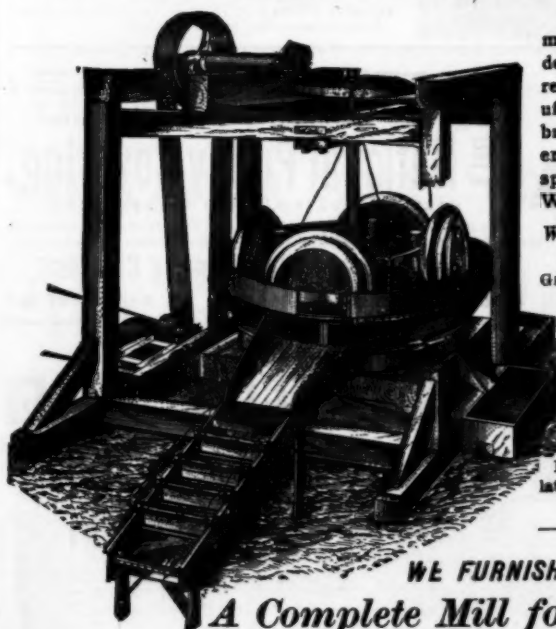


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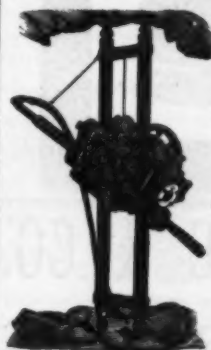
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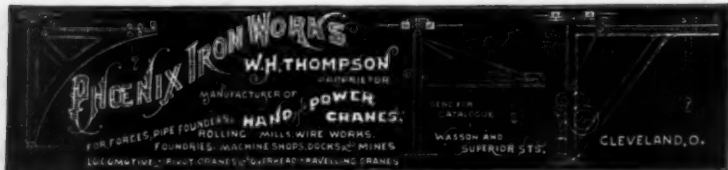


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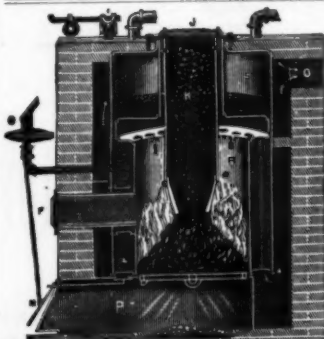
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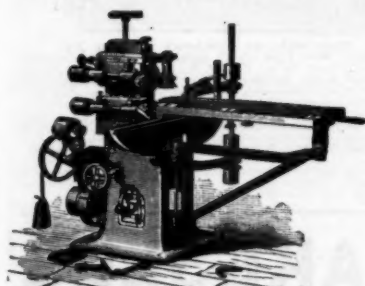
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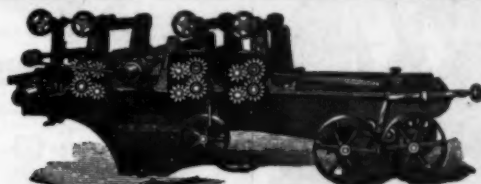
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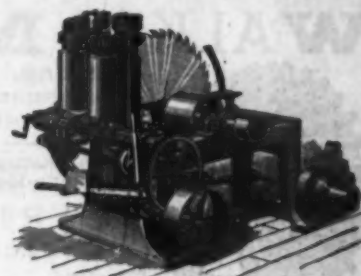
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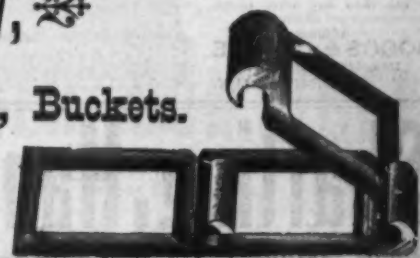
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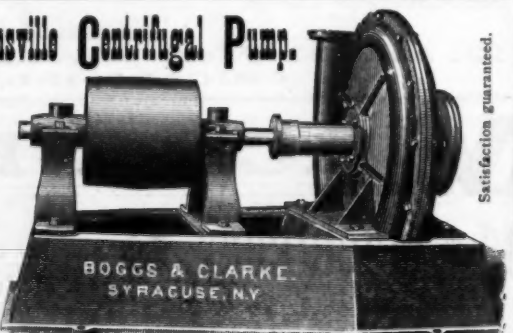
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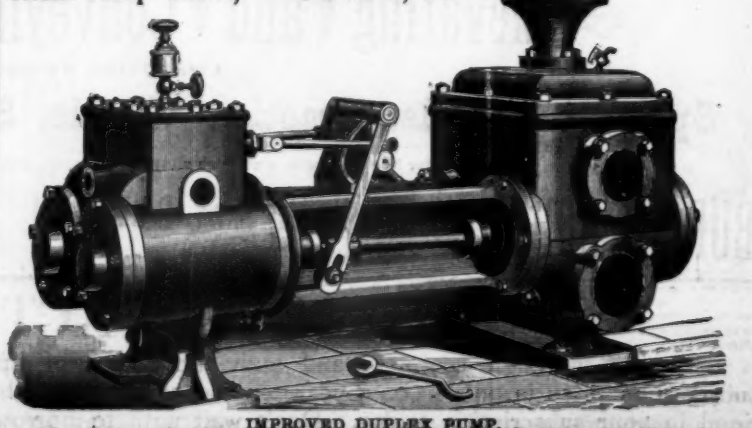
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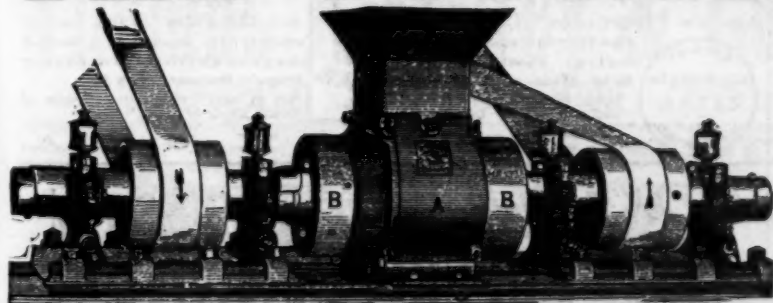
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